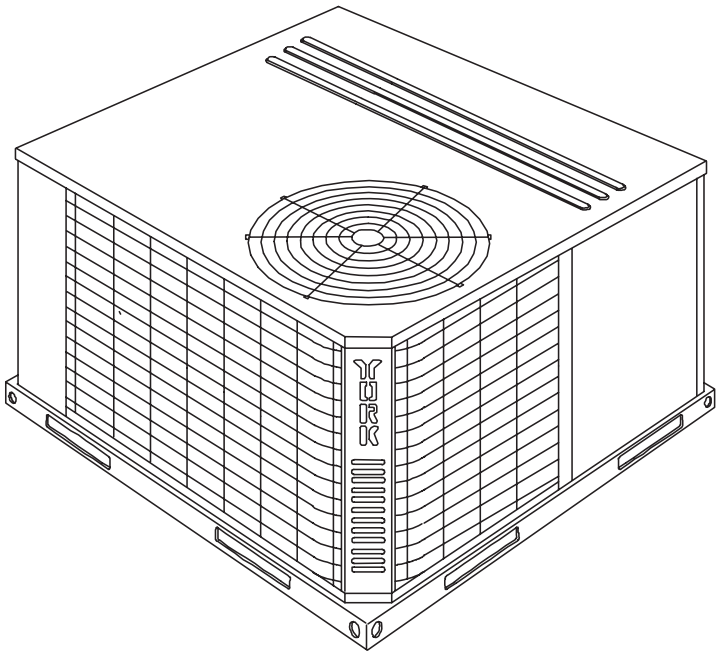
YORK®
Heating and Air Conditioning

TECHNICAL GUIDE

AFFINITY™ SERIES

SINGLE PACKAGE COOLING UNITS

D2EB030 THRU 060
2.5 THRU 5 TON
8.8 - 9.4 EER
EXPORT ONLY



ISO 9001
Certified Quality
Management System

DESCRIPTION

These packaged cooling air conditioners are designed for outdoor installation. Only utility and duct connections are required at the point of installation.

Field-installed electric heater accessories are available to provide electric heat combined with electric cooling.

STANDARD FEATURES / BENEFITS

OPERATING EFFICIENCY - All units provide high operating efficiencies and have a minimum EER of 8.8 or above.

ON SITE FLEXIBILITY - All model sizes share a common, compact design cabinet with a single footprint. The installer has the flexibility of setting one curb and placing the proper tonnage unit on that curb after the internal load has been determined. Field convertible duct connections from side shot to down shot allows the installer to have greater flexibility and needs to carry less inventory.

LOWER INSTALLATION COST - Installation time and costs are reduced by easy power and control wiring connections. The small base dimension means less space is required on the ground or roof, plus, the installer can fit this unit between the wheel wells of full size pick-up truck. All models are well under 400 pounds.

All units are completely wired, charged with R-22 and tested prior to shipment. Unique test stations using a new state of the art computerized process system are used to insure product quality. Refrigerant charge, and component part numbers are verified via computers at installation. Vital run test statistics such as system pressure, motor currents, air velocity and temperature and unit vibration are monitored and recorded by the system to insure unit performance.

Equal size, side supply and return duct connections allows easy hook-up of ducts to match low crawl spaces without transition pieces.

FOR DISTRIBUTION USE ONLY - NOT TO BE USED AT POINT OF RETAIL SALE

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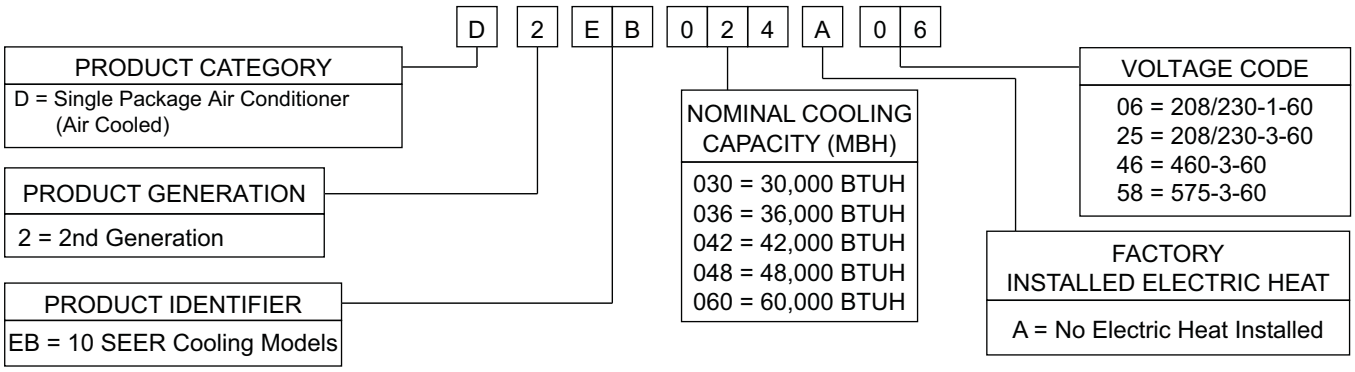

D 2 E B 0 2 4 A 0 6
PRODUCT CATEGORY
D = Single Package Air Conditioner (Air Cooled)
PRODUCT GENERATION
2 = 2nd Generation
PRODUCT IDENTIFIER
EB = 10 SEER Cooling Models
NOMINAL COOLING CAPACITY (MBH)
030 = 30,000 BTUH
036 = 36,000 BTUH
042 = 42,000 BTUH
048 = 48,000 BTUH
060 = 60,000 BTUH
VOLTAGE CODE
06 = 208/230-1-60
25 = 208/230-3-60
46 = 460-3-60
58 = 575-3-60
FACTORY INSTALLED ELECTRIC HEAT
A = No Electric Heat Installed

STANDARD FEATURES/BENEFITS (CONT.)

UTILITY CONNECTIONS MADE EASY - Electrical utility knockouts are provided through the bottom as well as the side of the unit. Utility connections can be made quickly and with a minimum amount of field labor. A field supplied and field installed electrical disconnect switch must be installed.

CONVERTIBLE AIRFLOW DESIGN - The bottom duct openings are covered when they leave the factory ready to be used for a side supply / side return application. If a bottom supply / bottom return application is desired, you simply remove the two panels from the bottom of the unit and place them in the side supply / side return duct openings. No panel cutting is required and no accessory panel is necessary. Convertible airflow design allows maximum field flexibility and minimum inventory.

CONDENSATE PAN - A non-corrosive, long-lasting, water-tight pan is positioned below the evaporator coil to collect and drain all condensate. Less collection of stagnate condensate will build-up. The condensate pan conforms to ASHRAE 62-89 standards (Ventilation for Acceptable Indoor Air Quality).

CONDENSATE DRAIN - The heavy duty, 3/4 inch NPTI copper connection is more tolerable during installation and is more durable over time. The connection is rigidly mounted to assure proper fit and leak tight seal.

DURABLE FINISH - With a heavy duty cabinet made of powder-painted, galvanized steel the neutral color blends into surrounding areas. The powered paint, provides a better paint to steel bond, which resists corrosion and rust creep. The special primer formulas and glossy earth tone finish insure less fading when exposed to sunlight and offers a more attractive on site appearance. This paint finish exceeds ASTM-B117 standards for 1000 hours salt spray rating, the highest in the industry.

FULL PERIMETER BASE RAILS - The easily removable base rails provide a solid foundation for the entire unit and protects the unit during shipment. The rails provide fork lift access from all sides, and rigging holes are also provided so that an overhead crane can be used to place the units on a roof. On applications when the unit is placed on a pad, the base will keep the unit off the pad to deter corrosion. On applications where height is limited, the 2-3/8 inch high base rails may be removed on location.

MORE ATTRACTIVE APPEARANCE - A single piece “Water Shed” top cover containing a top discharge condenser fan arrangement requires less square footage on installation and provides a wider variety of installations. The one piece design adds greater water integrity. Rounded corners with water drip edges add to the attractive appearance. The cabinet panels have a non-fibrous insulation that does not add insulation fibers into conditioned area.

TOP DISCHARGE - The top discharge condenser fan does not disrupt neighboring areas and does not dry-out vegetation surrounding the unit. The warm air from the top mounted fan is blown up away from the structure and any landscaping. This allows compact location on multi-unit applications.

CONDENSER COIL GRILLE - A multi-piece totally enclosed, rigidly mounted condenser coil grille provides protection from objects and personal after installation and provides protection during transit and installation.

LOW OPERATING SOUND LEVEL - The upward air flow carries the normal operating noise up and away from the living area. The rigid top panel effectively isolates any motor sound. Isolator mounted compressor and the rippled fins of the condenser coil muffle the normal fan motor and compressor operating sounds. The unique formed base pan also aids in sound alterations with it's “Super-Structure” design. This design strategically places embossments in the pan for optimum strength and rigidity.

FAN SYSTEM - All models operate over a wide range of design conditions with a 3-speed direct-drive fan motor. These units easily match all types of applications and provides greater on site flexibility to match comfort requirement.

SIMPLE CONTROL CIRCUIT - A low voltage printed circuit board contains a low voltage terminal strip. The electrical control box is not located in the compressor compartment. All wiring internal to the unit is color/number coded.

PROTECTED COMPRESSOR - The compressor is internally protected against high pressure and temperature. This is accomplished by the simultaneous operation of high pressure relief valve and a temperature sensor which protect the compressor if undesirable operating conditions occur.

EXCLUSIVE COIL DESIGN - Grooved copper tubes and enhanced aluminum fin construction improves heat transfer for maximum efficiency and durability.

LOW MAINTENANCE - Long life, permanently lubricated condenser and evaporator fan motor bearings need no annual maintenance adding greater reliability to the unit. Blower assembly can be easily removed for cleaning by the unique “Slip- Track” slide-out blower assembly.

SECURED SERVICE ACCESS PORTS - Protected, externally mounted, re-usable service access ports are provided on both the high and low lines for ease of evacuating and charging the system. No final field mounting required.

EASY SERVICE ACCESS - A large, single panel covers the electrical controls and makes servicing easy. The blower compartment has an additional large panel with a built-in handle tab. Removing this panel will allow the blower assembly to slide-out for easy removal for maintenance and ease of trouble shooting.

REPLACEMENT PARTS - The installer has no need to carry an inventory of unique parts or needs special training to replace any of the components parts for these units. All are easily obtained from Source 1 or other part houses.

FIELD-INSTALLED ACCESSORIES

ECONOMIZER DOWN DISCHARGE / SUPPLY KIT - Modulating integrated economizer provides simultaneous operation between the mechanical cooling and economizer

operation. Independent blade design insures proper control and less than 1% leak rate. Includes hood and mesh bird screen filter integrated into the hood, dry bulb sensor and relief damper. Separate field accessories of single enthalpy and dual enthalpy are also available.

SINGLE ENTHALPY SENSOR - Sensor replaces dry bulb sensor standard in economizer kit. Provides improved economizer operation by sensing the dry bulb temperature from outdoors plus the enthalpy content of the outdoor air.

DUAL ENTHALPY SENSOR - Additional sensor to single enthalpy sensor. Sensor senses both the return air temperature dry bulb and humidity in conjunction with the single enthalpy to determine the most economical mix. **Single Enthalpy sensor also required.**

UPGRADE SAFETY PACKAGE - Contains screw-in type High pressure, Low Pressure/Loss of Charge switch, freeze protection switch and lockout relay. Switches are placed onto existing schrader ports located in the unit by furnished adapters. When abnormal conditions are sensed through the pressure switches, the unit will lock out preventing any further operation until reset or problem is corrected. Package agency approved.

HAIL GUARD KIT - Kit contains protected grilles made of expanded aluminum grilles with full perimeter inch frame. Sloped hoods are also included to assure maximum protection..

ANTI SHORT CYCLE TIMER - Automatically prevents the compressor from restarting for 5 minutes after cycled off. Not required if Thermostat 2ET07700224 and 2ET04700224 are used.

FILTER / FRAME KIT (Single Phase only) - Kit contains the necessary hardware to field install return air filters into the base unit. Pre-cut filter racks and appropriate cleanable standard size filters are shipped in one kit. (1" filter is supplied) This kit is available for single phase horizontal or vertical duct application only. Standard in all 3 Phase models.

MOTORIZED FRESH AIR DAMPER - Designed for duct mounted side return and unit mounted down shot return applications. Damper capable of providing 0% thru 50% of outdoor air (field supplied). Closes on power loss, includes hood and screen assembly.

RECTANGLE TO ROUND ADAPTERS - Kit includes one supply and one return air rectangle to round duct adapter. Adapters are preformed and designed to fit over current duct openings on the base unit. Transition is from 15” square to 14” round.

ROOF CURBS - NRCA approved curbs provide proper fit to base unit for rooftop installations. Curbs are designed to be assembled through hinge pins in each corner. Kit also provides seal strip to assure a water tight seal. Eight and 14 inch high roof curbs are available.

MANUAL OUTDOOR DAMPER - Provides 0% thru 50% outdoor air capability (field adjustable). Designed for duct mounted side return and unit mounted down shot return applications. Includes hood and screen assembly.

WALL THERMOSTAT - The units are designed to operate with 24-volt electronic and electro-mechanical thermostats. All units can operate with single stage heat / single stage cool thermostats - with or without the economizer.

LOW AMBIENT KIT - Kit provides necessary hardware to convert unit to operate in cooling cycle down to 0 °F. Standard unit operation 45 °F.

TRANSFORMER KIT - Kit provides necessary hardware to provide single phase models from factory furnished 40 VA transformer capability to 75 VA transformer capability.

ELECTRIC HEATERS - Each heater package provides easy installation of electric heat strips. Slide in design with plug in harness and agency approved. Heaters are available from 5.0 KW sizes and are designed for single point connection.

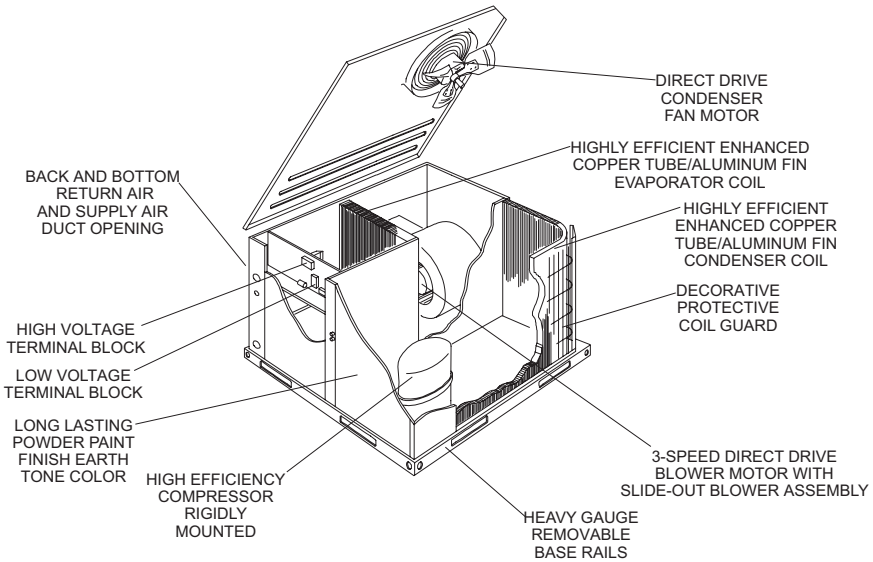

DIRECT DRIVE CONDENSER FAN MOTOR
HIGHLY EFFICIENT ENHANCED COPPER TUBE/ALUMINUM FIN EVAPORATOR COIL
BACK AND BOTTOM RETURN AIR AND SUPPLY AIR DUCT OPENING
HIGHLY EFFICIENT ENHANCED COPPER TUBE/ALUMINUM FIN CONDENSER COIL
DECORATIVE PROTECTIVE COIL GUARD
HIGH VOLTAGE TERMINAL BLOCK
LOW VOLTAGE TERMINAL BLOCK
LONG LASTING POWDER PAINT FINISH EARTH TONE COLOR
3-SPEED DIRECT DRIVE BLOWER MOTOR WITH SLIDE-OUT BLOWER ASSEMBLY
HIGH EFFICIENCY COMPRESSOR RIGIDLY MOUNTED
HEAVY GAUGE REMOVABLE BASE RAILS

FIGURE 1 - UNIT CUTAWAY

TABLE 1: PHYSICAL DATA

MODELS		DEB				
		030	036	042	048	060
EVAPORATOR BLOWER	CENTRIFUGAL BLOWER (Dia. x Wd. in.)	10 X 8	10 x 8	11 X 10	11 x 10	11 x 10
	FAN MOTOR HP	½	¾	¾	¾	1
EVAPORATOR COIL	ROWS DEEP	2	2	2	2	3
	FINS PER INCH	15	15	15	13	16
	FACE AREA (Sq. Ft.)	4.38	4.38	4.38	5.62	5.26
CONDENSER FAN	PROPELLER DIA. (in.)	22	22	22	22	22
	FAN MOTOR HP	1/4	1/4	1/4	1/4	1/4
	NOM. CFM TOTAL	2,400	2,400	2,400	2,800	2,800
CONDENSER COIL	ROWS DEEP	1	1	1	1	1
	FINS PER INCH	20	18	16	13	20
	FACE AREA (Sq. Ft.)	8.3	8.3	11.7	16.4	16.4
CHARGE	REFRIGERANT 22 (lbs./oz.)	3 / 13	3 / 10	4 / 8	5 / 15	5 /15
FILTER	FACE AREA (Sq. Ft.) / Qty. / Size	2.14 / 2 / 14" x 22"				
COMPRESSOR	HERMETIC, QTY. = 1 (Type)	Recip.	Recip.	Recip.	Scroll	Scroll

TABLE 2: RATINGS - ARI

Model DEB	Cooling Capacity[1] 80/67-95 °F		Sound Rating[2] (decibels)	Electric Heat Nom. Capacity KW (single phase)	Electric Heat Nom. Capacity KW (three phase)
	MBH	EER			
030	29.0	8.9	79	5.0, 7.5, 10.0, 15.0	-
036	35.2	8.7	81	5.0, 7.5, 10.0, 15.0	10.0, 15.0
042	40.5	9.4	83	5.0, 7.5, 10.0, 15.0	10.0, 15.0
048	46.5	8.8	81	10.0, 15.0, 20.0, 25.0	10.0, 15.0, 20.0, 25.0
060	59.0	8.8	79	10.0, 15.0, 20.0, 25.0	10.0, 15.0, 20.0, 25.0

1. Certified in accordance with the Unitary Small Equipment certification program, which is based on ARI Standard 210/240.
2. Rated in accordance with ARI Standard 270.

EER = Energy Efficiency Ratio - the total cooling output in BTU's during a normal annual usage period for cooling divided by the total electric power input in watt-hours during the same period.

TABLE 3: COOLING CAPACITIES - 2-1/2 TON (DEB030)

TEMPERATURE OF AIR ON OUTDOOR COIL			AIR ON INDOOR COIL																			
			750 CFM				875 CFM				1,000 CFM				1,125 CFM				1,250 CFM			
			WB °F				WB °F				WB °F				WB °F				WB °F			
			72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57
85 °F	Net Cap MBH		32.3	29.8	27.5	28.1	32.6	30.1	27.8	28.4	33.0	30.4	28.1	28.7	33.5	30.9	28.4	29.1	33.9	31.3	28.8	29.5
	Total Power Input kW		2.94	2.92	2.83	2.81	3.02	3.00	2.90	2.88	3.10	3.08	2.98	2.96	3.20	3.18	3.08	3.06	3.31	3.28	3.18	3.16
	Sensible Capacity MBH[1]	Entering Dry Bulb °F 86	18.2	23.6	27.5	28.1	20.1	25.8	27.8	28.4	21.9	28.0	28.1	28.7	23.3	29.6	28.4	29.1	24.8	31.3	28.8	29.5
		83	16.1	21.4	25.5	26.3	17.5	23.3	26.8	27.5	19.0	25.1	28.1	28.7	20.0	26.4	28.4	29.1	21.1	27.7	28.8	29.5
		80	14.0	19.3	23.3	24.1	15.0	20.7	25.1	25.9	16.0	22.2	26.8	27.7	16.7	23.1	27.8	28.6	17.3	24.0	28.8	29.5
		77	11.8	17.2	21.2	22.0	12.5	18.2	22.5	23.4	13.1	19.3	23.9	24.8	13.4	19.7	24.5	25.3	13.6	20.2	25.1	25.8
		74	9.7	15.0	19.1	19.9	10.0	15.7	20.0	20.9	10.2	16.3	21.0	21.9	10.1	16.4	21.2	22.0	9.9	16.5	21.4	22.1
		71	-	12.9	16.9	17.7	-	13.2	17.5	18.3	-	13.4	18.0	19.0	-	13.1	17.9	18.7	-	12.8	17.7	18.4
		68	-	10.8	14.8	15.6	-	10.6	15.0	15.8	-	10.5	15.1	16.1	-	9.8	14.5	15.3	-	9.1	13.9	14.6
95 °F	Net Cap MBH		29.1	27.5	24.4	24.8	30.2	28.6	25.3	25.7	31.3	29.7	26.2	26.7	30.9	29.3	25.9	26.4	30.5	28.9	25.6	26.0
	Total Power Input kW		3.17	3.11	3.04	3.03	3.24	3.17	3.10	3.09	3.30	3.23	3.16	3.15	3.43	3.36	3.29	3.27	3.56	3.49	3.41	3.39
	Sensible Capacity MBH[1]	Entering Dry Bulb °F 86	17.5	22.2	24.4	24.8	19.5	24.7	25.3	25.7	21.6	27.2	26.2	26.7	23.1	28.1	25.9	26.4	24.6	28.9	25.6	26.0
		83	15.4	20.1	24.1	23.9	17.0	22.2	25.2	25.3	18.7	24.3	26.2	26.7	19.8	25.7	25.9	26.4	20.9	27.0	25.6	26.0
		80	13.2	18.0	22.0	21.8	14.5	19.7	24.1	23.8	15.8	21.4	26.2	25.9	16.5	22.4	25.9	26.0	17.2	23.3	25.6	26.0
		77	11.1	15.8	19.9	19.6	12.0	17.2	21.6	21.3	12.8	18.5	23.3	23.0	13.1	19.0	22.6	22.6	13.4	19.6	21.8	22.3
		74	9.0	13.7	17.7	17.5	9.4	14.6	19.1	18.8	9.9	15.6	20.4	20.1	9.8	15.7	19.2	19.3	9.7	15.9	18.1	18.6
		71	-	11.6	15.6	15.3	-	12.1	16.5	16.3	-	12.7	17.5	17.2	-	12.4	15.9	16.0	-	12.1	14.4	14.8
		68	-	9.4	13.5	13.2	-	9.6	14.0	13.7	-	9.7	14.6	14.3	-	9.1	12.6	12.7	-	8.4	10.6	11.1
105 °F	Net Cap MBH		26.7	24.8	22.2	22.3	27.8	25.8	23.1	23.2	28.9	26.8	24.0	24.1	28.6	26.5	23.7	23.9	28.3	26.3	23.5	23.6
	Total Power Input kW		3.38	3.28	3.22	3.22	3.45	3.35	3.29	3.28	3.52	3.42	3.36	3.35	3.66	3.55	3.49	3.48	3.79	3.68	3.62	3.61
	Sensible Capacity MBH[1]	Entering Dry Bulb °F 86	16.5	21.3	22.2	22.3	18.5	23.4	23.1	23.2	20.5	25.6	24.0	24.1	22.0	25.9	23.7	23.9	23.5	26.3	23.5	23.6
		83	14.4	19.2	22.0	21.8	16.0	21.2	23.0	22.9	17.6	23.3	24.0	24.1	18.7	24.3	23.7	23.9	19.7	25.3	23.5	23.6
		80	12.3	17.0	19.8	19.6	13.5	18.7	21.8	21.6	14.7	20.4	23.8	23.5	15.4	21.3	23.6	23.6	16.0	22.2	23.5	23.6
		77	10.1	14.9	17.7	17.5	10.9	16.2	19.3	19.0	11.8	17.5	20.9	20.6	12.0	18.0	20.3	20.3	12.3	18.5	19.8	19.9
		74	8.0	12.7	15.6	15.3	8.4	13.7	16.8	16.5	8.9	14.6	17.9	17.7	8.7	14.7	17.0	16.9	8.6	14.8	16.0	16.2
		71	-	10.6	13.4	13.2	-	11.1	14.2	14.0	-	11.7	15.0	14.8	-	11.4	13.7	13.6	-	11.0	12.3	12.5
		68	-	8.5	11.3	11.1	-	8.6	11.7	11.5	-	8.7	12.1	11.9	-	8.0	10.3	10.3	-	7.3	8.6	8.7
115 °F	Net Cap MBH		24.3	22.0	20.0	19.8	25.4	22.9	20.8	20.7	26.4	23.9	21.7	21.5	26.2	23.7	21.6	21.4	26.1	23.6	21.4	21.3
	Total Power Input kW		3.58	3.45	3.41	3.41	3.66	3.52	3.48	3.48	3.74	3.60	3.56	3.56	3.89	3.74	3.69	3.69	4.03	3.87	3.83	3.83
	Sensible Capacity MBH[1]	Entering Dry Bulb °F 86	15.6	20.3	20.0	19.8	17.5	22.1	20.8	20.7	19.5	23.9	21.7	21.5	20.9	23.7	21.6	21.4	22.3	23.6	21.4	21.3
		83	13.4	18.2	19.8	19.6	15.0	20.3	20.7	20.6	16.5	22.3	21.7	21.5	17.6	23.0	21.6	21.4	18.6	23.6	21.4	21.3
		80	11.3	16.1	17.7	17.5	12.5	17.7	19.5	19.3	13.6	19.4	21.3	21.1	14.2	20.3	21.4	21.2	14.9	21.1	21.4	21.3
		77	9.1	13.9	15.5	15.3	9.9	15.2	17.0	16.8	10.7	16.5	18.4	18.2	10.9	16.9	18.1	17.9	11.1	17.4	17.7	17.6
		74	7.0	11.8	13.4	13.2	7.4	12.7	14.4	14.2	7.8	13.6	15.5	15.3	7.6	13.6	14.7	14.6	7.4	13.7	14.0	13.8
		71	-	9.6	11.2	11.1	-	10.1	11.9	11.7	-	10.6	12.6	12.4	-	10.3	11.4	11.2	-	10.0	10.2	10.1
		68	-	7.5	9.1	8.9	-	7.6	9.4	9.2	-	7.7	9.7	9.5	-	7.0	8.1	7.9	-	6.2	6.5	6.4
125 °F	Net Cap MBH		21.9	19.2	17.8	17.4	22.9	20.1	18.6	18.2	23.9	21.0	19.4	19.0	23.9	21.0	19.4	18.9	23.9	20.9	19.4	18.9
	Total Power Input kW		3.8	3.6	3.6	3.6	3.9	3.7	3.7	3.7	4.0	3.8	3.8	3.8	4.1	3.9	3.9	3.9	4.3	4.1	4.0	4.0
	Sensible Capacity MBH[1]	Entering Dry Bulb °F 86	14.6	19.4	17.8	17.4	16.5	20.8	18.6	18.2	18.4	22.2	19.4	19.0	19.8	21.6	19.4	18.9	21.2	20.9	19.4	18.9
		83	12.5	17.2	17.6	17.5	14.0	19.3	18.5	18.2	15.5	21.3	19.4	19.0	16.5	21.6	19.4	18.9	17.4	21.9	19.4	18.9
		80	10.3	15.1	15.5	15.3	11.4	16.7	17.2	17.0	12.6	18.4	18.9	18.7	13.1	19.2	19.1	18.8	13.7	20.1	19.4	18.9
		77	8.2	13.0	13.3	13.2	8.9	14.2	14.7	14.5	9.6	15.5	16.0	15.8	9.8	15.9	15.8	15.5	10.0	16.3	15.6	15.2
		74	6.0	10.8	11.2	11.1	6.4	11.7	12.1	12.0	6.7	12.6	13.1	12.9	6.5	12.6	12.5	12.2	6.3	12.6	11.9	11.5
		71	-	8.7	9.1	8.9	-	9.2	9.6	9.4	-	9.6	10.1	10.0	-	9.3	9.2	8.9	-	8.9	8.2	7.7
		68	-	6.5	6.9	6.8	-	6.6	7.1	6.9	-	6.7	7.2	7.0	-	5.9	5.8	5.5	-	5.2	4.5	4.0

1. These are net capacity ratings. The indoor blower motor heat has already been subtracted from the gross cooling capacity

ALL SENSIBLE CAPACITIES

TABLE 4: COOLING CAPACITIES - 3 TON (DEB036)

TEMPERATURE OF AIR ON OUTDOOR COIL			AIR ON INDOOR COIL																			
			900 CFM				1,050				1,200				1,350				1,500			
			WB °F				WB °F				WB °F				WB °F				WB °F			
			72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57
85 °F	Net Cap MBH		34.7	32.3	28.5	28.4	36.9	34.3	30.3	30.1	39.0	36.4	32.1	31.9	39.9	37.1	32.7	32.6	40.7	37.9	33.4	33.2
	Total Power Input kW		3.61	3.52	3.46	3.46	3.62	3.53	3.47	3.47	3.63	3.55	3.48	3.48	3.70	3.61	3.55	3.55	3.77	3.68	3.61	3.61
	Sensible Capacity MBH[1]	Entering Dry Bulb °F 86	19.7	25.4	28.5	28.4	22.2	28.5	30.3	30.1	24.6	31.5	32.1	31.9	26.3	33.5	32.7	32.6	28.0	35.5	33.4	33.2
		83	17.2	22.9	26.7	28.4	19.2	25.5	29.4	30.1	21.1	28.0	32.1	31.9	22.4	29.5	32.7	32.6	23.6	31.0	33.4	33.2
		80	14.6	20.3	24.2	26.0	16.1	22.4	26.7	28.7	17.6	24.5	29.2	31.4	18.4	25.6	30.4	32.3	19.1	26.6	31.6	33.2
		77	12.0	17.7	21.6	23.4	13.1	19.4	23.7	25.6	14.1	21.0	25.7	27.9	14.4	21.6	26.4	28.3	14.6	22.1	27.2	28.8
		74	9.5	15.2	19.1	20.8	10.1	16.4	20.6	22.6	10.6	17.5	22.2	24.4	10.4	17.6	22.5	24.3	10.2	17.6	22.7	24.3
		71	-	12.6	16.5	18.3	-	13.3	17.6	19.6	-	14.1	18.7	20.9	-	13.6	18.5	20.4	-	13.2	18.2	19.8
		68	-	10.0	13.9	15.7	-	10.3	14.6	16.5	-	10.6	15.2	17.4	-	9.6	14.5	16.4	-	8.7	13.7	15.4
95 °F	Net Cap MBH		32.5	30.4	27.8	26.8	34.4	32.2	29.4	28.4	36.3	34.0	31.0	29.9	37.2	34.8	31.8	30.7	38.1	35.7	32.6	31.5
	Total Power Input kW		3.85	3.74	3.70	3.68	3.85	3.75	3.71	3.68	3.86	3.75	3.71	3.69	3.93	3.82	3.78	3.76	4.01	3.90	3.86	3.83
	Sensible Capacity MBH[1]	Entering Dry Bulb °F 86	18.5	24.3	27.8	26.8	21.0	27.4	29.4	28.4	23.4	30.5	31.0	29.9	24.8	32.0	31.8	30.7	26.1	33.4	32.6	31.5
		83	16.0	21.7	25.7	26.6	18.0	24.4	28.4	28.2	19.9	27.0	31.0	29.9	20.8	28.0	31.8	30.7	21.6	29.0	32.6	31.5
		80	13.4	19.2	23.2	24.0	14.9	21.3	25.8	26.7	16.4	23.5	28.4	29.4	16.8	24.0	29.0	30.0	17.1	24.5	29.6	30.7
		77	10.8	16.6	20.6	21.4	11.9	18.3	22.8	23.7	12.9	20.0	24.9	25.9	12.8	20.0	25.0	26.1	12.7	20.0	25.1	26.2
		74	8.3	14.0	18.0	18.9	8.9	15.3	19.7	20.6	9.4	16.5	21.4	22.4	8.8	16.0	21.0	22.1	8.2	15.5	20.7	21.7
		71	-	11.5	15.5	16.3	-	12.2	16.7	17.6	-	13.0	17.9	18.9	-	12.0	17.1	18.1	-	11.1	16.2	17.3
		68	-	8.9	12.9	13.7	-	9.2	13.7	14.6	-	9.5	14.4	15.4	-	8.1	13.1	14.1	-	6.6	11.7	12.8
105 °F	Net Cap MBH		29.5	27.4	25.0	24.4	31.4	29.2	26.6	26.0	33.3	31.0	28.2	27.6	34.1	31.7	28.9	28.3	35.0	32.5	29.6	29.0
	Total Power Input kW		4.05	3.92	3.93	3.85	4.07	3.94	3.95	3.87	4.09	3.96	3.97	3.89	4.15	4.02	4.02	3.95	4.21	4.08	4.08	4.00
	Sensible Capacity MBH[1]	Entering Dry Bulb °F 86	17.5	23.3	25.0	24.4	19.9	26.3	26.6	26.0	22.3	29.2	28.2	27.6	23.6	30.3	28.9	28.3	24.8	31.4	29.6	29.0
		83	15.0	20.7	24.0	24.3	16.9	23.3	26.1	25.9	18.8	25.9	28.2	27.6	19.6	26.8	28.9	28.3	20.3	27.6	29.6	29.0
		80	12.4	18.1	21.4	21.7	13.9	20.3	23.9	24.3	15.3	22.4	26.5	26.8	15.6	22.8	26.9	27.3	15.8	23.1	27.3	27.7
		77	9.8	15.6	18.8	19.1	10.8	17.3	20.9	21.2	11.8	18.9	23.0	23.3	11.6	18.8	22.9	23.3	11.4	18.7	22.8	23.2
		74	7.3	13.0	16.3	16.6	7.8	14.2	17.9	18.2	8.3	15.4	19.5	19.8	7.6	14.8	18.9	19.3	6.9	14.2	18.4	18.8
		71	-	10.4	13.7	14.0	-	11.2	14.8	15.2	-	11.9	16.0	16.3	-	10.8	14.9	15.3	-	9.7	13.9	14.3
		68	-	7.9	11.1	11.4	-	8.2	11.8	12.1	-	8.4	12.5	12.8	-	6.9	10.9	11.3	-	5.3	9.4	9.8
115 °F	Net Cap MBH		26.5	24.4	22.2	22.0	28.4	26.2	23.8	23.6	30.4	28.0	25.5	25.2	31.1	28.6	26.1	25.8	31.8	29.3	26.7	26.4
	Total Power Input kW		4.25	4.11	4.16	4.03	4.28	4.14	4.19	4.06	4.31	4.17	4.22	4.09	4.36	4.21	4.27	4.13	4.40	4.25	4.31	4.17
	Sensible Capacity MBH[1]	Entering Dry Bulb °F 86	16.5	22.2	22.2	22.0	18.9	25.1	23.8	23.6	21.2	28.0	25.5	25.2	22.4	28.6	26.1	25.8	23.5	29.3	26.7	26.4
		83	14.0	19.7	22.2	22.0	15.9	22.3	23.8	23.6	17.7	24.9	25.5	25.2	18.4	25.6	26.1	25.8	19.0	26.3	26.7	26.4
		80	11.4	17.1	19.6	19.4	12.8	19.2	22.1	21.8	14.2	21.4	24.5	24.3	14.4	21.6	24.8	24.5	14.5	21.8	25.0	24.7
		77	8.8	14.5	17.1	16.9	9.8	16.2	19.0	18.8	10.7	17.9	21.0	20.8	10.4	17.6	20.8	20.5	10.1	17.3	20.5	20.3
		74	6.3	12.0	14.5	14.3	6.8	13.2	16.0	15.8	7.2	14.4	17.5	17.3	6.4	13.6	16.8	16.5	5.6	12.9	16.1	15.8
		71	-	9.4	11.9	11.7	-	10.1	13.0	12.7	-	10.9	14.0	13.8	-	9.6	12.8	12.5	-	8.4	11.6	11.3
		68	-	6.8	9.4	9.2	-	7.1	9.9	9.7	-	7.4	10.5	10.3	-	5.6	8.8	8.6	-	3.9	7.1	6.9
125 °F	Net Cap MBH		23.5	21.4	19.4	19.6	25.4	23.2	21.1	21.3	27.4	25.0	22.7	22.9	28.0	25.5	23.2	23.4	28.6	26.1	23.7	23.9
	Total Power Input kW		4.5	4.3	4.4	4.2	4.5	4.3	4.4	4.2	4.5	4.4	4.5	4.3	4.6	4.4	4.5	4.3	4.6	4.4	4.5	4.3
	Sensible Capacity MBH[1]	Entering Dry Bulb °F 86	15.5	21.2	19.4	19.6	17.8	24.0	21.1	21.3	20.1	26.7	22.7	22.9	21.2	27.0	23.2	23.4	22.2	27.2	23.7	23.9
		83	13.0	18.6	20.4	19.7	14.8	21.2	21.6	21.3	16.6	23.8	22.7	22.9	17.2	24.4	23.2	23.4	17.7	24.9	23.7	23.9
		80	10.4	16.1	17.9	17.1	11.8	18.2	20.2	19.4	13.1	20.3	22.6	21.7	13.2	20.4	22.6	21.7	13.2	20.4	22.7	21.8
		77	7.8	13.5	15.3	14.6	8.7	15.2	17.2	16.4	9.6	16.8	19.1	18.2	9.2	16.4	18.7	17.7	8.8	16.0	18.2	17.3
		74	5.3	10.9	12.7	12.0	5.7	12.1	14.2	13.3	6.1	13.3	15.6	14.7	5.2	12.4	14.7	13.8	4.3	11.5	13.8	12.8
		71	-	8.4	10.2	9.4	-	9.1	11.1	10.3	-	9.8	12.1	11.2	-	8.4	10.7	9.8	-	7.0	9.3	8.4
		68	-	5.8	7.6	6.9	-	6.1	8.1	7.3	-	6.3	8.6	7.7	-	4.4	6.7	5.8	-	2.6	4.8	3.9

1. These are net capacity ratings. The indoor blower motor heat has already been subtracted from the gross cooling capacity

ALL SENSIBLE CAPACITIES

TABLE 5: COOLING CAPACITIES - 3-1/2 TON (DEB042)

TEMPERATURE OF AIR ON OUTDOOR COIL			AIR ON INDOOR COIL																			
			1,050 CFM				1,225				1,400				1,575				1,750			
			WB °F				WB °F				WB °F				WB °F				WB °F			
			72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57
85 °F	Net Cap MBH		40.7	39.0	36.5	34.1	42.0	40.3	37.7	35.2	43.3	41.6	38.8	36.3	43.9	42.1	39.3	36.8	44.4	42.6	39.8	37.2
	Total Power Input kW		4.09	3.82	3.77	3.75	4.16	3.89	3.83	3.81	4.23	3.95	3.90	3.88	4.38	4.10	4.04	4.02	4.54	4.25	4.18	4.16
	Sensible Capacity MBH[1] / Entering Dry Bulb °F	86	23.8	31.3	36.5	34.1	26.1	34.2	37.7	35.2	28.5	37.0	38.8	36.3	30.5	39.4	39.3	36.8	32.6	41.9	39.8	37.2
		83	20.8	28.3	34.6	34.1	22.6	30.6	36.7	35.2	24.4	32.9	38.8	36.3	25.9	34.8	39.3	36.8	27.3	36.6	39.8	37.2
		80	17.8	25.4	31.6	31.9	19.1	27.1	33.8	34.1	20.3	28.8	36.0	36.3	21.2	30.1	37.6	36.8	22.1	31.4	39.2	37.2
		77	14.9	22.4	28.6	28.9	15.5	23.6	30.3	30.6	16.2	24.7	31.9	32.2	16.6	25.5	32.9	32.1	16.9	26.2	34.0	32.0
		74	11.9	19.4	25.6	26.0	12.0	20.0	26.7	27.0	12.1	20.7	27.8	28.1	11.9	20.8	28.3	27.5	11.7	21.0	28.8	26.8
		71	-	16.4	22.7	23.0	-	16.5	23.2	23.5	-	16.6	23.7	24.1	-	16.2	23.6	22.8	-	15.8	23.6	21.6
		68	-	13.4	19.7	20.0	-	12.9	19.6	20.0	-	12.5	19.6	20.0	-	11.5	19.0	18.2	-	10.6	18.3	16.4
95 °F	Net Cap MBH		38.7	36.7	34.0	32.7	40.1	38.1	35.2	33.9	41.6	39.4	36.5	35.2	42.1	39.9	36.9	35.6	42.6	40.3	37.4	36.0
	Total Power Input kW		4.16	4.06	3.96	3.98	4.23	4.13	4.03	4.05	4.30	4.19	4.10	4.11	4.44	4.33	4.23	4.25	4.59	4.47	4.37	4.39
	Sensible Capacity MBH[1] / Entering Dry Bulb °F	86	23.0	30.4	34.0	32.7	25.4	33.3	35.2	33.9	27.8	36.3	36.5	35.2	29.9	38.3	36.9	35.6	32.0	40.3	37.4	36.0
		83	20.0	27.4	33.2	32.7	21.9	29.8	34.9	33.9	23.7	32.2	36.5	35.2	25.2	34.1	36.9	35.6	26.7	36.0	37.4	36.0
		80	17.0	24.4	30.3	30.4	18.3	26.3	32.6	32.8	19.7	28.2	35.0	35.2	20.6	29.5	36.2	35.6	21.5	30.8	37.4	36.0
		77	14.0	21.4	27.3	27.5	14.8	22.7	29.1	29.3	15.6	24.1	30.9	31.1	15.9	24.8	31.5	30.9	16.3	25.6	32.1	30.8
		74	11.0	18.4	24.3	24.5	11.3	19.2	25.5	25.7	11.5	20.0	26.8	27.0	11.3	20.2	26.9	26.3	11.1	20.4	26.9	25.5
		71	-	15.4	21.3	21.5	-	15.6	22.0	22.2	-	15.9	22.7	22.9	-	15.5	22.2	21.6	-	15.2	21.7	20.3
		68	-	12.4	18.3	18.5	-	12.1	18.4	18.7	-	11.8	18.6	18.8	-	10.9	17.6	17.0	-	10.0	16.5	15.1
105 °F	Net Cap MBH		36.2	33.9	30.8	31.2	37.6	35.1	32.0	32.4	38.9	36.4	33.1	33.6	39.4	36.8	33.5	34.0	39.9	37.3	33.9	34.4
	Total Power Input kW		4.40	4.28	4.20	4.22	4.47	4.35	4.27	4.29	4.54	4.42	4.34	4.35	4.69	4.57	4.48	4.50	4.84	4.71	4.63	4.64
	Sensible Capacity MBH[1] / Entering Dry Bulb °F	86	22.4	29.3	30.8	31.2	24.8	32.1	32.0	32.4	27.3	34.9	33.1	33.6	29.3	36.1	33.5	34.0	31.4	37.3	33.9	34.4
		83	19.4	26.3	30.5	31.2	21.3	28.8	31.8	32.4	23.2	31.3	33.1	33.6	24.7	33.2	33.5	34.0	26.2	35.1	33.9	34.4
		80	16.4	23.3	27.8	28.8	17.7	25.3	30.1	31.2	19.1	27.2	32.4	33.6	20.0	28.6	33.1	34.0	21.0	29.9	33.9	34.4
		77	13.4	20.3	24.8	25.8	14.2	21.7	26.5	27.6	15.0	23.1	28.3	29.5	15.4	23.9	28.5	29.3	15.8	24.7	28.7	29.1
		74	10.4	17.3	21.8	22.8	10.7	18.2	23.0	24.1	10.9	19.0	24.2	25.4	10.7	19.3	23.8	24.7	10.6	19.5	23.5	23.9
		71	-	14.3	18.8	19.8	-	14.7	19.4	20.6	-	15.0	20.1	21.3	-	14.6	19.2	20.0	-	14.3	18.3	18.7
		68	-	11.4	15.8	16.8	-	11.1	15.9	17.0	-	10.9	16.0	17.2	-	10.0	14.5	15.4	-	9.1	13.1	13.5
115 °F	Net Cap MBH		33.8	31.1	27.7	29.8	35.0	32.2	28.8	30.9	36.3	33.4	29.8	32.0	36.7	33.8	30.1	32.3	37.2	34.2	30.5	32.7
	Total Power Input kW		4.64	4.51	4.44	4.46	4.71	4.58	4.51	4.53	4.78	4.65	4.58	4.59	4.94	4.80	4.73	4.75	5.09	4.96	4.88	4.90
	Sensible Capacity MBH[1] / Entering Dry Bulb °F	86	21.7	28.3	27.7	29.8	24.2	30.8	28.8	30.9	26.7	33.4	29.8	32.0	28.8	33.8	30.1	32.3	30.9	34.2	30.5	32.7
		83	18.7	25.3	27.7	29.8	20.7	27.8	28.8	30.9	22.6	30.3	29.8	32.0	24.2	32.3	30.1	32.3	25.7	34.2	30.5	32.7
		80	15.7	22.3	25.3	27.1	17.1	24.3	27.5	29.5	18.5	26.3	29.8	32.0	19.5	27.7	30.1	32.3	20.5	29.1	30.5	32.7
		77	12.7	19.3	22.3	24.1	13.6	20.7	24.0	26.0	14.4	22.2	25.7	27.9	14.9	23.0	25.5	27.7	15.3	23.8	25.3	27.5
		74	9.7	16.3	19.3	21.1	10.0	17.2	20.4	22.5	10.3	18.1	21.6	23.8	10.2	18.4	20.8	23.0	10.1	18.6	20.1	22.3
		71	-	13.3	16.3	18.1	-	13.7	16.9	18.9	-	14.0	17.5	19.7	-	13.7	16.2	18.4	-	13.4	14.8	17.1
		68	-	10.3	13.3	15.2	-	10.1	13.4	15.4	-	9.9	13.4	15.6	-	9.1	11.5	13.7	-	8.2	9.6	11.9
125 °F	Net Cap MBH		31.4	28.3	24.6	28.3	32.5	29.3	25.5	29.3	33.6	30.4	26.4	30.3	34.0	30.7	26.7	30.7	34.5	31.1	27.1	31.1
	Total Power Input kW		4.9	4.7	4.7	4.7	4.9	4.8	4.7	4.8	5.0	4.9	4.8	4.8	5.2	5.0	5.0	5.0	5.3	5.2	5.1	5.2
	Sensible Capacity MBH[1] / Entering Dry Bulb °F	86	21.1	27.2	24.6	28.3	23.6	29.6	25.5	29.3	26.1	31.9	26.4	30.3	28.3	31.5	26.7	30.7	30.4	31.1	27.1	31.1
		83	18.1	24.2	25.0	28.3	20.0	26.8	25.7	29.3	22.0	29.4	26.4	30.3	23.6	31.3	26.7	30.7	25.2	33.3	27.1	31.1
		80	15.1	21.3	22.8	25.5	16.5	23.3	25.0	27.9	17.9	25.3	27.2	30.3	19.0	26.7	27.1	30.7	20.0	28.2	27.1	31.1
		77	12.1	18.3	19.8	22.5	13.0	19.7	21.4	24.4	13.9	21.2	23.1	26.3	14.3	22.1	22.5	26.1	14.8	23.0	21.9	25.9
		74	9.1	15.3	16.8	19.5	9.4	16.2	17.9	20.8	9.8	17.1	19.0	22.2	9.7	17.4	17.8	21.4	9.5	17.7	16.6	20.7
		71	-	12.3	13.8	16.5	-	12.7	14.4	17.3	-	13.1	14.9	18.1	-	12.8	13.2	16.8	-	12.5	11.4	15.5
		68	-	9.3	10.8	13.5	-	9.1	10.8	13.8	-	9.0	10.8	14.0	-	8.1	8.5	12.1	-	7.3	6.2	10.2

1. These are net capacity ratings. The indoor blower motor heat has already been subtracted from the gross cooling capacity

ALL SENSIBLE CAPACITIES

TABLE 6: COOLING CAPACITIES - 4 TON (DEB048)

TEMPERATURE OF AIR ON OUTDOOR COIL			AIR ON INDOOR COIL																			
			1200 CFM				1400 CFM				1600 CFM				1800 CFM				2000 CFM			
			WB °F				WB °F				WB °F				WB °F				WB °F			
			72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57
85 °F	Net Cap MBH		49.2	46.1	41.6	41.3	50.6	47.4	42.9	42.5	52.1	48.8	44.1	43.7	52.8	49.4	44.7	44.2	53.4	50.1	45.2	44.8
	Total Power Input kW		4.47	4.44	4.35	4.33	4.59	4.57	4.47	4.45	4.72	4.69	4.59	4.57	4.78	4.76	4.66	4.63	4.85	4.83	4.72	4.70
	Sensible Capacity MBH[1] / Entering Dry Bulb °F	86	28.3	35.7	41.3	41.3	31.5	39.6	42.7	42.5	34.7	43.5	44.1	43.7	37.1	46.3	44.7	44.2	39.5	49.1	45.2	44.8
		83	24.9	32.3	37.8	39.5	27.4	35.6	41.0	41.6	30.0	38.9	44.1	43.7	31.8	41.0	44.7	44.2	33.5	43.2	45.2	44.8
		80	21.4	28.9	34.4	36.1	23.4	31.6	37.6	39.4	25.4	34.2	40.7	42.7	26.5	35.7	42.5	43.8	27.6	37.2	44.3	44.8
		77	18.0	25.5	31.0	32.7	19.4	27.5	33.5	35.4	20.7	29.5	36.1	38.1	21.2	30.4	37.2	38.5	21.6	31.2	38.3	38.9
		74	14.6	22.1	27.6	29.3	15.3	23.5	29.5	31.3	16.0	24.9	31.4	33.4	15.8	25.1	31.9	33.1	15.7	25.3	32.4	32.9
		71	-	18.6	24.2	25.8	-	19.4	25.4	27.3	-	20.2	26.7	28.7	-	19.8	26.6	27.8	-	19.3	26.4	26.9
		68	-	15.2	20.7	22.4	-	15.4	21.4	23.2	-	15.5	22.1	24.1	-	14.4	21.3	22.5	-	13.4	20.4	21.0
95 °F	Net Cap MBH		47.2	43.4	39.3	38.8	48.6	44.7	40.5	40.0	50.0	46.0	41.7	41.1	48.9	45.0	40.8	40.2	47.8	44.0	39.9	39.3
	Total Power Input kW		4.88	4.85	4.74	4.74	5.00	4.97	4.86	4.86	5.13	5.09	4.98	4.98	5.23	5.20	5.09	5.08	5.34	5.31	5.19	5.19
	Sensible Capacity MBH[1] / Entering Dry Bulb °F	86	27.7	34.7	39.3	38.8	30.6	38.3	40.5	40.0	33.6	41.9	41.7	41.1	35.3	42.9	40.8	40.2	37.0	44.0	39.9	39.3.
		83	24.2	31.3	36.5	37.9	26.6	34.2	39.1	39.5	28.9	37.2	41.7	41.1	30.0	38.3	40.8	40.2	31.0	39.5	39.9	39.3
		80	20.8	27.9	33.0	34.5	22.5	30.2	35.8	37.4	24.3	32.5	38.5	40.2	24.7	33.0	39.1	39.8	25.0	33.5	39.7	39.3
		77	17.4	24.5	29.6	31.1	18.5	26.2	31.7	33.3	19.6	27.9	33.9	35.6	19.3	27.7	33.8	34.5	19.1	27.6	33.8	33.3
		74	14.0	21.0	26.2	27.7	14.5	22.1	27.7	29.3	14.9	23.2	29.2	30.9	14.0	22.4	28.5	29.1	13.1	21.6	27.8	27.4
		71	-	17.6	22.8	24.2	-	18.1	23.7	25.2	-	18.5	24.5	26.2	-	17.1	23.2	23.8	-	15.7	21.9	21.4
		68	-	14.2	19.4	20.8	-	14.0	19.6	21.2	-	13.9	19.9	21.6	-	11.8	17.9	18.5	-	9.7	15.9	15.5
105 °F	Net Cap MBH		45.5	40.1	37.8	37.4	46.1	40.6	38.3	37.9	46.7	41.1	38.8	38.3	46.3	40.8	38.5	38.0	46.0	40.4	38.2	37.7
	Total Power Input kW		5.37	5.30	5.21	5.21	5.49	5.43	5.34	5.33	5.62	5.55	5.46	5.45	5.72	5.66	5.56	5.55	5.83	5.76	5.66	5.65
	Sensible Capacity MBH[1] / Entering Dry Bulb °F	86	27.0	33.2	37.8	37.4	29.6	36.1	38.3	37.9	32.3	39.1	38.8	38.3	34.3	39.7	38.5	38.0	36.4	40.4	38.2	37.7
		83	23.6	29.8	35.7	36.3	25.6	32.2	37.3	37.3	37.6	34.7	38.8	38.3	29.0	36.3	38.5	38.0	30.4	38.0	38.2	37.7
		80	20.1	26.4	32.3	32.9	21.5	28.2	34.6	35.2	22.9	30.0	36.8	37.5	23.7	31.0	37.5	37.6	24.5	32.0	38.1	37.7
		77	16.7	22.9	28.9	29.5	17.5	24.2	30.5	31.2	18.3	25.4	32.1	32.8	18.4	25.7	32.1	32.3	18.5	26.0	32.1	31.8
		74	13.3	19.5	25.5	26.1	13.5	20.1	26.5	27.1	13.6	20.7	27.5	28.2	13.1	20.4	26.8	27.0	12.5	20.1	26.2	25.8
		71	-	16.1	22.0	22.7	-	16.1	22.4	23.1	-	16.0	22.8	23.5	-	15.1	21.5	21.7	-	14.1	20.2	19.8
		68	-	12.7	18.6	19.2	-	12.0	18.4	19.0	-	11.6	18.1	18.8	-	9.8	16.2	16.4	-	8.1	14.3	13.9
115 °F	Net Cap MBH		43.9	36.7	36.3	36.0	43.6	36.5	36.1	35.8	43.3	36.3	35.8	35.5	43.7	36.6	36.2	35.8	44.1	36.9	36.5	36.2
	Total Power Input kW		5.86	5.76	5.69	5.67	5.98	5.88	5.81	5.80	6.11	6.01	5.94	5.92	6.22	6.11	6.04	6.02	6.32	6.21	6.14	6.12
	Sensible Capacity MBH[1] / Entering Dry Bulb °F	86	26.3	31.7	36.3	36.0	28.6	34.0	36.1	35.8	30.9	36.3	35.8	35.5	33.4	36.6	36.2	35.8	35.8	36.9	36.5	36.2
		83	22.9	28.3	35.0	34.8	24.6	30.2	35.4	35.1	26.3	32.2	35.8	35.5	28.1	34.3	36.2	35.8	29.8	36.4	36.5	36.2
		80	19.5	24.8	31.6	31.3	20.5	26.2	33.3	33.1	21.6	27.6	35.1	34.8	22.7	29.0	35.8	35.5	23.9	30.5	36.5	36.2
		77	16.1	21.4	28.2	27.9	16.5	22.2	29.3	29.0	17.0	22.9	30.4	30.1	17.4	23.7	30.4	30.2	17.9	24.5	30.5	30.2
		74	12.6	18.0	24.7	24.5	12.5	18.1	25.2	25.0	12.3	18.2	25.7	25.4	12.1	18.4	25.1	24.8	12.0	18.5	24.5	24.2
		71	-	14.6	21.3	21.1	-	14.1	21.2	20.9	-	13.6	21.1	20.8	-	13.1	19.8	19.5	-	12.6	18.6	18.3
		68	-	11.1	17.9	17.6	-	10.0	17.1	16.9	-	8.9	16.4	16.1	-	7.8	14.5	14.2	-	6.6	12.6	12.3
125 °F	Net Cap MBH		42.2	33.4	34.8	34.6	41.1	32.4	33.8	33.7	40.0	31.4	32.9	32.7	41.1	32.4	33.8	33.7	42.2	33.4	34.8	34.6
	Total Power Input kW		6.3	6.2	6.2	6.1	6.5	6.3	6.3	6.3	6.6	6.5	6.4	6.4	6.7	6.6	6.5	6.5	6.8	6.7	6.6	6.6
	Sensible Capacity MBH[1] / Entering Dry Bulb °F	86	25.6	30.1	34.8	34.6	27.6	31.8	33.8	33.7	29.6	31.4	32.9	32.7	32.4	32.4	33.8	33.7	35.2	33.4	34.8	34.6
		83	22.2	26.7	34.3	33.2	23.6	28.2	33.6	32.9	25.0	29.8	32.9	32.7	27.1	32.3	33.8	33.7	29.3	33.4	34.8	34.6
		80	18.8	23.3	30.8	29.8	19.5	24.2	32.1	30.9	20.3	25.1	32.9	32.1	21.8	27.0	33.8	33.3	23.3	28.9	34.8	34.6
		77	15.4	19.9	27.4	26.3	15.5	20.2	28.0	26.9	15.6	20.4	28.6	27.4	16.5	21.7	28.8	28.0	17.3	22.9	28.9	28.6
		74	12.0	16.5	24.0	22.9	11.5	16.1	24.0	22.8	11.0	15.8	24.0	22.7	11.2	16.4	23.4	22.7	11.4	17.0	22.9	22.7
		71	-	13.0	20.6	19.5	-	12.1	19.9	18.8	-	11.1	19.3	18.1	-	11.1	18.1	17.4	-	11.0	17.0	16.7
		68	-	9.6	17.2	16.1	-	8.0	15.9	14.7	-	6.4	14.6	13.4	-	5.7	12.8	12.1	-	5.1	11.0	10.7

1. These are net capacity ratings. The indoor blower motor heat has already been subtracted from the gross cooling capacity

ALL SENSIBLE CAPACITIES

TABLE 7: COOLING CAPACITIES - 5 TON (DEB060)

TEMPERATURE OF AIR ON OUTDOOR COIL			AIR ON INDOOR COIL																			
			1200 CFM				1400 CFM				1600 CFM				1800 CFM				2000 CFM			
			WB °F				WB °F				WB °F				WB °F				WB °F			
			72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57	72	67	62	57
85 °F	Net Cap MBH		65.2	59.2	52.9	53.4	67.2	61.1	54.5	55.1	69.2	62.9	56.2	56.7	70.3	63.9	57.1	57.6	71.4	64.9	58.0	58.6
	Total Power Input kW		5.68	5.60	4.45	5.41	5.87	5.79	5.63	5.59	6.06	5.98	5.82	5.77	6.25	6.16	6.00	5.95	6.43	6.35	6.18	6.13
	Sensible Capacity MBH[1] / Entering Dry Bulb °F	86	37.9	46.9	52.9	53.4	41.7	51.4	54.5	55.1	45.6	56.0	56.2	56.7	49.1	60.1	57.1	57.6	52.6	64.2	58.0	58.6
		83	33.6	42.6	50.2	51.9	36.7	46.4	53.2	54.3	39.8	50.1	56.2	56.7	42.5	53.4	57.1	57.6	45.2	56.7	58.0	58.6
		80	29.3	38.3	45.9	47.6	31.6	41.3	49.5	51.3	33.9	44.3	53.1	55.0	35.8	46.8	55.6	56.8	37.7	49.3	58.0	58.6
		77	25.1	34.0	41.7	43.3	26.6	36.3	44.5	46.2	28.1	38.5	47.3	49.2	29.2	40.2	48.9	50.2	30.3	41.8	50.6	51.1
		74	20.8	29.8	37.4	39.0	21.5	31.2	39.4	41.2	22.3	32.7	41.5	43.4	22.5	33.5	42.3	43.5	22.8	34.4	43.1	43.7
		71	-	25.5	33.1	34.7	-	26.2	34.4	36.1	-	26.8	35.6	37.5	-	26.9	35.6	36.9	-	26.9	35.7	36.2
		68	-	21.2	28.8	30.5	-	21.1	29.3	31.1	-	21.0	29.8	31.7	-	20.2	29.0	30.2	-	19.5	28.2	28.8
95 °F	Net Cap MBH		60.1	54.7	48.7	49.4	62.5	56.9	50.7	51.3	64.9	59.1	52.6	53.3	65.7	59.9	53.3	54.0	66.5	60.6	53.9	54.6
	Total Power Input kW		6.25	6.13	6.02	5.97	6.42	6.30	6.19	6.13	6.59	6.47	6.35	6.30	6.78	6.66	6.54	6.48	6.97	6.84	6.72	6.66
	Sensible Capacity MBH[1] / Entering Dry Bulb °F	86	35.5	44.5	48.7	49.4	39.4	49.2	50.7	51.3	43.3	53.9	52.6	53.3	47.0	57.2	53.3	54.0	50.8	60.6	53.9	54.6
		83	31.2	40.2	47.6	48.7	34.4	44.1	50.1	51.0	37.5	48.0	52.6	53.3	40.4	51.7	53.3	54.0	43.3	55.3	53.9	54.6
		80	27.0	35.9	43.3	44.4	39.3	39.1	47.1	48.2	31.7	42.2	50.9	52.1	33.8	45.0	52.4	53.4	35.9	47.8	53.9	54.6
		77	22.7	31.7	39.0	40.1	24.3	34.0	42.0	43.2	25.8	36.4	45.0	46.3	27.1	38.4	45.7	46.7	28.4	40.4	46.4	47.2
		74	18.4	27.4	34.8	35.8	19.2	29.0	37.0	38.1	20.0	30.5	39.2	40.4	20.5	31.7	39.1	40.1	21.0	32.9	39.0	39.7
		71	-	23.1	30.5	31.5	-	23.9	31.9	33.1	-	24.7	33.4	34.6	-	25.1	32.5	33.4	-	25.5	31.5	32.3
		68	-	18.8	26.2	27.3	-	18.9	26.9	28.0	-	18.9	27.5	28.8	-	18.4	25.8	26.8	-	18.0	24.1	24.8
105 °F	Net Cap MBH		55.5	50.2	45.0	45.3	57.9	52.3	46.9	47.2	60.2	54.4	48.8	49.1	60.9	55.0	49.3	49.7	61.6	55.6	49.9	50.2
	Total Power Input kW		6.90	6.73	6.63	6.58	7.07	6.90	6.79	6.75	7.25	7.06	6.96	6.91	7.47	7.28	7.17	7.12	7.69	7.50	7.38	7.33
	Sensible Capacity MBH[1] / Entering Dry Bulb °F	86	33.5	42.4	45.0	45.3	37.5	47.1	46.9	47.2	41.4	51.8	48.8	49.1	44.9	53.7	49.3	49.7	48.3	55.6	49.9	50.2
		83	29.2	38.1	44.0	44.5	32.4	42.2	46.4	46.8	35.6	46.3	48.8	49.1	38.2	49.5	49.3	49.7	40.8	52.8	49.9	50.2
		80	24.9	33.8	39.8	40.2	27.4	37.1	43.6	44.2	29.8	40.5	47.5	48.1	31.6	42.9	48.7	49.2	33.4	45.3	49.9	50.2
		77	20.6	29.6	35.5	36.0	22.3	32.1	38.6	39.1	24.0	34.6	41.7	42.3	24.9	36.3	42.1	42.5	25.9	37.9	42.4	42.8
		74	16.4	25.3	31.2	31.7	17.2	27.0	33.5	34.1	18.1	28.8	35.9	36.4	18.3	29.6	35.4	35.9	18.5	30.4	35.0	35.3
		71	-	21.0	26.9	27.4	-	22.0	28.5	29.0	-	23.0	30.0	30.6	-	23.0	28.8	29.2	-	23.0	27.5	27.9
		68	-	16.7	22.7	23.1	-	16.9	23.4	23.9	-	17.1	24.2	24.8	-	16.3	22.1	22.6	-	15.5	20.1	20.4
115 °F	Net Cap MBH		51.0	45.7	41.3	41.3	53.2	47.6	43.1	43.1	55.5	49.6	45.0	44.9	56.0	50.2	45.4	45.4	56.6	50.7	45.9	45.8
	Total Power Input kW		7.56	7.33	7.23	7.20	7.73	7.50	7.39	7.36	7.90	7.66	7.56	7.52	8.15	7.90	7.80	7.76	8.40	8.15	8.04	8.00
	Sensible Capacity MBH[1] / Entering Dry Bulb °F	86	31.4	40.3	41.3	41.3	35.5	45.0	43.1	43.1	39.6	49.6	45.0	44.9	42.7	50.2	45.4	45.4	45.8	50.7	45.9	45.8
		83	27.2	36.0	40.5	40.4	30.5	40.3	42.7	42.7	33.7	44.5	45.0	44.9	36.1	47.4	45.4	45.4	38.4	50.3	45.9	45.8
		80	22.9	31.7	36.2	36.1	25.4	35.2	40.2	40.1	27.9	38.7	44.2	44.1	29.4	40.8	45.0	45.0	30.9	42.9	45.9	45.8
		77	18.6	27.5	32.0	31.8	20.3	30.2	35.2	35.0	22.1	32.9	38.4	38.2	22.8	34.1	38.4	38.3	23.5	35.4	38.4	38.4
		74	14.3	23.2	27.7	27.6	15.3	25.1	30.1	30.0	16.2	27.0	32.5	32.4	16.1	27.5	31.8	31.7	16.0	27.9	31.0	30.9
		71	-	18.9	23.4	23.3	-	20.1	25.0	24.9	-	21.2	26.7	26.6	-	20.9	25.1	25.0	-	20.5	23.5	23.5
		68	-	14.6	19.1	19.0	-	15.0	20.0	19.9	-	15.4	20.9	20.7	-	14.2	18.5	18.4	-	13.0	16.1	16.0
125 °F	Net Cap MBH		46.5	41.1	37.7	37.3	48.6	43.0	39.4	39.0	50.7	44.9	41.1	40.7	51.2	45.3	41.5	41.1	51.7	45.7	41.9	41.5
	Total Power Input kW		8.2	7.9	7.8	7.8	8.4	8.1	8.0	8.0	8.5	8.3	8.2	8.1	8.8	8.5	8.4	8.4	9.1	8.8	8.7	8.7
	Sensible Capacity MBH[1] / Entering Dry Bulb °F	86	29.4	38.2	37.7	37.3	33.6	42.9	39.4	39.0	37.7	44.9	41.1	40.7	40.5	45.3	41.5	41.1	43.3	45.7	41.9	41.5
		83	25.1	33.9	37.0	36.3	28.5	38.3	39.0	38.5	31.9	42.8	41.1	40.7	33.9	45.3	41.5	41.1	35.9	45.7	41.9	41.5
		80	20.8	29.6	32.7	32.0	23.4	33.3	36.8	36.0	26.0	36.9	40.9	40.0	27.2	38.7	41.4	40.7	28.4	40.4	41.9	41.5
		77	16.6	25.3	28.4	27.7	18.4	28.2	31.7	31.0	20.2	31.1	35.0	34.2	20.6	32.0	34.7	34.1	21.0	32.9	34.4	34.0
		74	12.3	21.1	24.1	23.4	13.3	23.2	26.7	25.9	14.4	25.3	29.2	28.4	14.0	25.4	28.1	27.5	13.5	25.5	27.0	26.6
		71	-	16.8	19.9	19.2	-	18.1	21.6	20.8	-	19.5	23.4	22.5	-	18.7	21.5	20.8	-	18.0	19.5	19.1
		68	-	12.5	15.6	14.9	-	13.1	16.6	15.8	-	13.6	17.5	16.7	-	12.1	14.8	14.2	-	10.6	12.1	11.7

1. These are net capacity ratings. The indoor blower motor heat has already been subtracted from the gross cooling capacity

ALL SENSIBLE CAPACITIES

TABLE 8: SIDE AND BOTTOM SUPPLY AIR BLOWER PERFORMANCE

Model No. DEB	Blower Speed Setting	External Static Pressure (Inches Water Gauge)																					
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0		1.1	
		CFM	W	CFM	W	CFM	W	CFM	W	CFM	W	CFM	W	CFM	W	CFM	W	CFM	W	CFM	W	CFM	W
030 (2.5)	High	-	-	-	-	-	-	-	-	1171	504	1080	486	990	468	888	456	786	444	-	-	-	-
	Medium	1080	351	1021	341	961	331	902	321	841	305	781	290	-	-	-	-	-	-	-	-	-	-
	Low	810	261	765	240	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
036 (3.0)	High	-	-	-	-	1440	605	1361	581	1273	555	1185	530	1097	504	1004	480	912	456	-	-	-	-
	Medium	1465	531	1395	512	1325	492	1255	473	1167	446	1079	419	992	392	-	-	-	-	-	-	-	-
	Low	1316	473	1260	455	1204	438	1148	420	1069	396	990	372	911	348	-	-	-	-	-	-	-	-
042 (3.5)	High	-	-	-	-	1728	725	1633	697	1527	666	1422	635	1317	605	1205	576	1094	547	-	-	-	-
	Medium	-	-	1674	614	1590	590	1506	567	1400	535	1295	502	1190	470	1063	428	-	-	-	-	-	-
	Low	1579	567	1512	546	1444	525	1377	504	1282	476	1188	447	1093	418	-	-	-	-	-	-	-	-
048 (4.0)	High	-	-	1985	870	1939	850	1897	830	1813	800	1728	770	1644	740	1559	707	1474	673	1389	640	-	-
	Medium	1694	690	1662	673	1629	657	1597	640	1542	623	1486	607	1431	590	1336	563	1240	537	-	-	-	-
	Low	1385	520	1349	510	1312	500	1276	490	1235	480	-	-	-	-	-	-	-	-	-	-	-	-
060 (5.0)	High	-	-	-	-	2450	1213	2366	1165	2282	1117	2198	1068	2114	1020	1989	993	1864	967	1739	940	-	-
	Medium	2339	1170	2275	1118	2211	1067	2147	1015	2083	963	2019	912	1955	860	1854	824	1753	788	1652	752	-	-
	Low	1929	940	1877	903	1824	867	1772	830	1720	793	1667	757	1615	720	1586	706	1557	691	1528	677	-	-

TABLE 9: ADDITIONAL STATIC RESISTANCE

Description	Resistance, IWG CFM											
	500	600	700	800	900	1,000	1,100	1,200	1,300	1,400	1,500	1,600
Wet Evaporator Coil	.01	.01	.01	.02	.03	.04	.05	.06	.07	.08	.09	.09
Economizer	.00	.00	.00	.01	.01	.01	.01	.02	.03	.04	.05	.06
Filter/Frame Kit	.01	.02	.02	.02	.02	.02	.03	.03	.03	.03	.04	.05
Electric Heat	.02	.03	.03	.03	.04	.04	.05	.06	.07	.08	.09	.10

Note: 1. Deduct these resistance values from the available external static pressure shown in the respective Blower Performance Table.
2. The pressure thru the economizer is greater for 100% outdoor air then for 100% return air. If the resistance of the return air duct system is less then 0.25 IWG, the unit will deliver less CFM during full economizer operation.

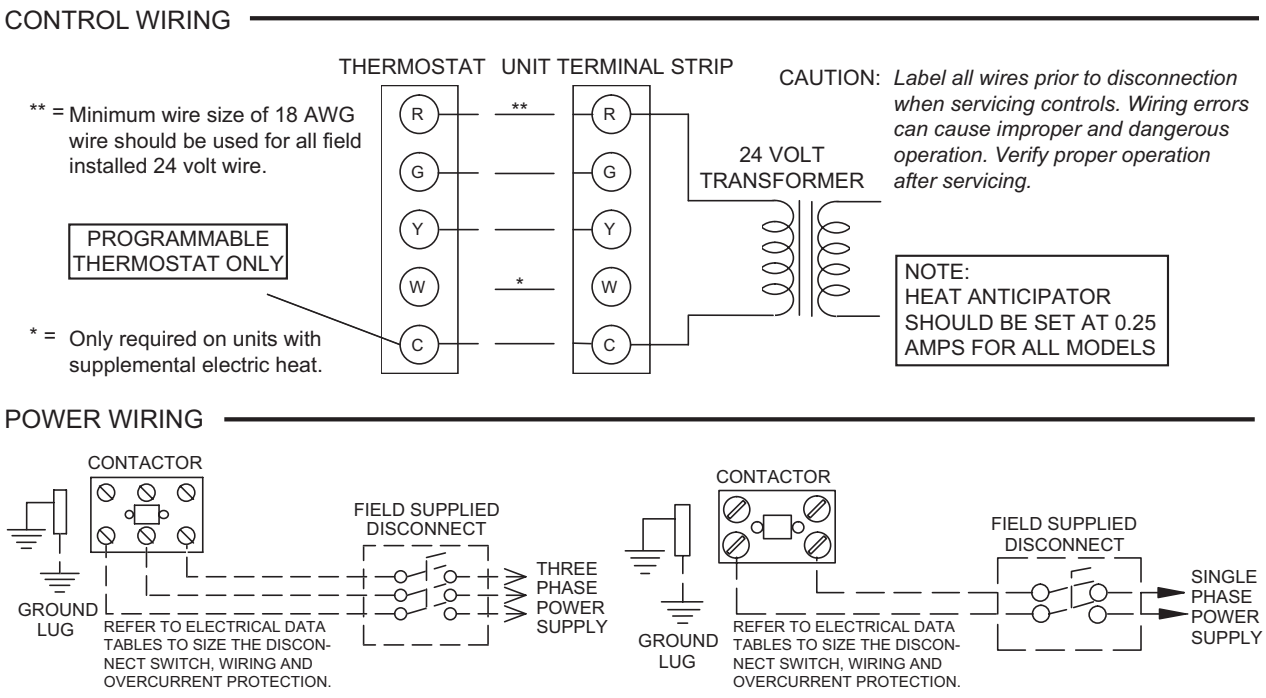

CONTROL WIRING
THERMOSTAT
UNIT TERMINAL STRIP
** = Minimum wire size of 18 AWG wire should be used for all field installed 24 volt wire.
PROGRAMMABLE THERMOSTAT ONLY
* = Only required on units with supplemental electric heat.
R
G
Y
W
C
**
*
24 VOLT TRANSFORMER
CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.
NOTE:
HEAT ANTICIPATOR SHOULD BE SET AT 0.25 AMPS FOR ALL MODELS
POWER WIRING
CONTACTOR
GROUND LUG
REFER TO ELECTRICAL DATA TABLES TO SIZE THE DISCONNECT SWITCH, WIRING AND OVERCURRENT PROTECTION.
FIELD SUPPLIED DISCONNECT
THREE PHASE POWER SUPPLY
CONTACTOR
GROUND LUG
REFER TO ELECTRICAL DATA TABLES TO SIZE THE DISCONNECT SWITCH, WIRING AND OVERCURRENT PROTECTION.
FIELD SUPPLIED DISCONNECT
SINGLE PHASE POWER SUPPLY

FIGURE 2 - TYPICAL FIELD WIRING DIAGRAM

TABLE 10: ELECTRICAL DATA

MODEL DEB	POWER SUPPLY	VOLTAGE LIMITATIONS[1]		COMPRESSOR		COND. FAN MOTOR, FLA	SUPPLY AIR BLOWER MOTOR FLA	MINIMUM CIRCUIT AMPACITY	MAX. FUSE[2] SIZE, AMPS	MAX. HACR BREAKER SIZE, AMPS	UNIT POWER FACTOR	TRANSFORMER SIZE (VA)
		MIN.	MAX.	RLA	LRA							
30	208/230-1-60	187	253	14.7	73	1.1	2.6	22.1	30	30	0.96	40
36	208/230-1-60	187	253	17.3	94	1.1	3.5	26.2	35	35	0.96	40
42	208/230-1-60	187	253	15.5	86	1.1	3.5	23.9	30	30	0.96	40
48	208/230-1-60	187	253	24.4	140	1.3	4.0	35.8	45	45	0.96	40
60	208/230-1-60	187	253	28.9	165	1.3	4.0	44.4	60	60	0.96	40
36	208/230-3-60	187	253	10.9	78.0	1.1	3.5	18.2	25	25	0.96	75
42	208/230-3-60	187	253	11.5	88.0	1.1	3.5	19.0	25	25	0.96	75
48	208/230-3-60	187	253	14.1	105.0	0.7	4.0	22.3	30	30	0.96	75
60	208/230-3-60	187	253	16.0	125.0	1.3	7.0	28.3	40	40	0.96	75
36	460-3-60	414	504	5.8	40.0	0.6	1.8	9.6	15	15	0.96	75
42	460-3-60	414	504	5.8	42.0	0.6	1.8	9.7	15	15	0.96	75
48	460-3-60	414	504	7.1	55.0	0.6	2.0	11.5	15	15	0.96	75
60	460-3-60	414	504	8.0	67.0	0.7	3.5	14.2	20	20	0.96	75
36	575-3-60	518	630	4.5	32.0	0.4	1.5	7.6	15	15	0.96	75
42	575-3-60	518	630	5.8	44.0	0.4	1.5	9.1	15	15	0.96	75
48	575-3-60	518	630	5.6	44.0	0.6	1.6	9.3	15	15	0.96	75
60	575-3-60	518	630	6.4	50.0	0.6	2.8	11.4	15	15	0.96	75

1. Rated in accordance with ARI Standard 110, utilization range “A”.
2. Dual element, time delay type.

	NOMINAL VOLTAGE	VOLTAGE	KW CAP. MULTIPLIER
ELECTRIC HEAT CORRECTION FACTORS	240	208 230	.75 .92
	480	460	.92
	600	575	.92

TABLE 11: ELECTRICAL DATA (COOLING / ELECTRIC HEAT)

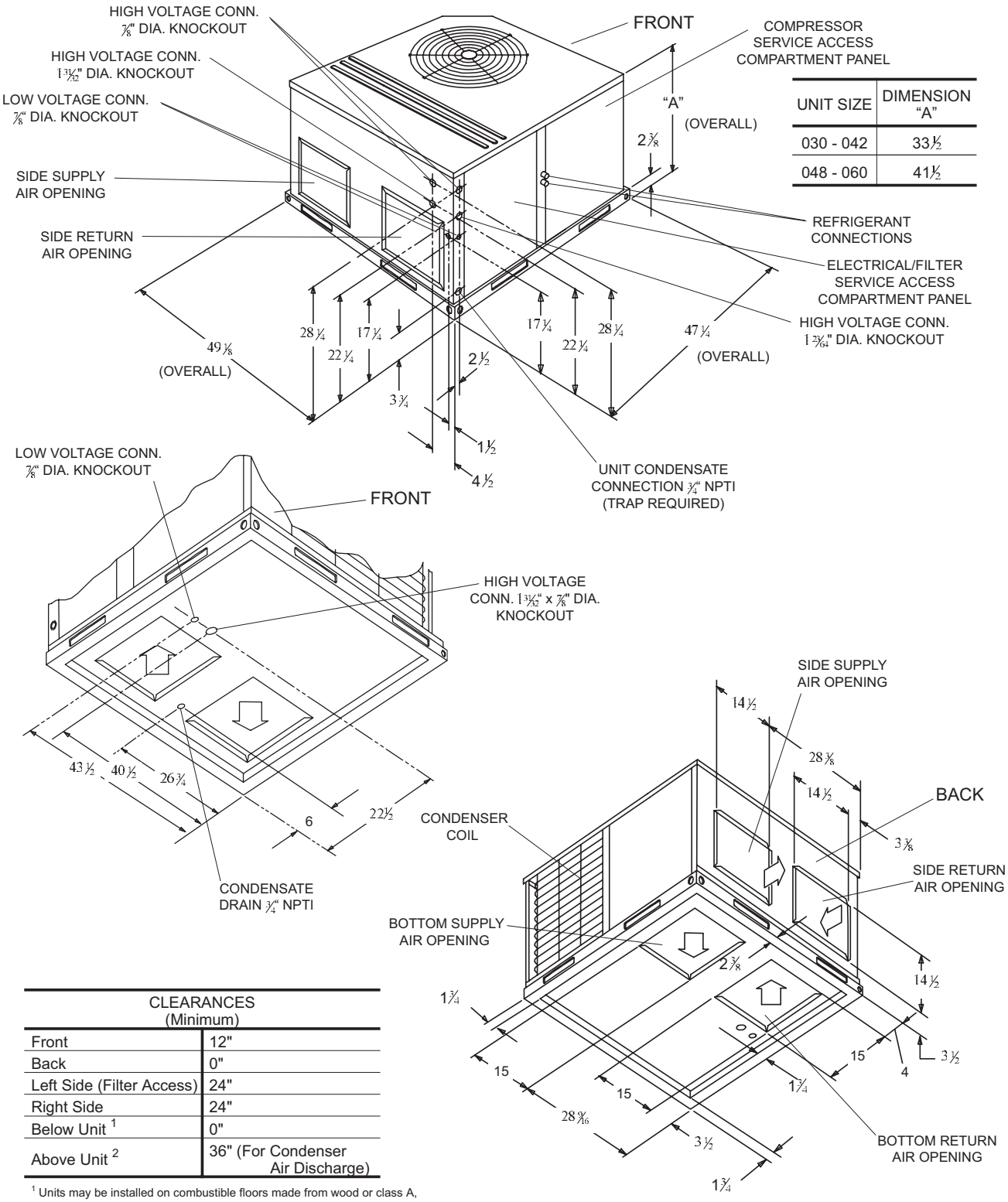
MODEL DEB	POWER SUPPLY	COMPRESSOR		COND. FAN MOTORS	SUPPLY AIR BLOWER MOTOR	ELECTRIC HEAT ACCESSORY				MCA (AMPS)	MAX FUSE/ SIZE[1] (AMPS)	MAX HACR[2] BREAKER SIZE
		RLA	LRA	FLA	FLA	MODEL NO.	STAGE	KW	TOTAL AMPS			
030	208/230-1-60	12.0	73.0	1.1	2.6	2NH04500506	1	3.8/5.0*	18.1/20.8	25.8/29.3	30/30	30/30
						2NH04500706	2	5.6/7.5*	27.3/31.3	37.1/42.3	40/45	40/45
						2NH04501006	2	7.5/10.0*	36.1/41.7	48.4/55.3	50/60	50/60
						2NH04501506	2	11.3/15.0*	54.2/62.5	71.0/81.4	80/90	80/90
036	208/230-1-60	17.3	94.0	1.1	3.5	2NH04501006	2	7.5/10.0*	36.1/41.7	49.5/56.5	50/60	50/60
						2NH04501506	2	11.3/15.0*	54.2/62.5	72.1/82.5	80/90	80/90
042	208/230-1-60	15.5	86.0	1.1	3.5	2NH04500506	1	3.8/5.0*	18.1/20.8	26.9/30.4	35/35	35/35
						2NH04500706	2	5.6/7.5*	27.1/31.3	38.2/43.4	40/45	40/45
						2NH04501006	2	7.5/10.0*	36.1/41.7	49.5/56.5	50/60	50/60
						2NH04501506	2	11.3/15.0*	54.2/62.5	72.1/82.5	80/90	80/90
048	208/230-1-60	24.4	140.0	1.3	4.0	2NH04501006	2	7.5/10.0*	36.1/41.7	50.1/57.1	60/60	60/60
						2NH04501506	2	11.3/15.0*	54.2/62.5	72.1/83.1	80/90	80/90
						2NH04502006	2	15.0/20.0*	72.2/83.3	95.3/109.2	100/110	100/110
						2NH04502506	2	18.8/25.0*	90.3/104.2	117.8/135.2	125/150	125/150
060	208/230-1-60	38.0	165.0	1.3	7.0	2NH04501006	2	7.5/10.0*	36.1/41.7	53.9/60.8	70/70	70/70
						2NH04501506	2	11.3/15.0*	54.2/62.5	76.5/86.9	80/90	80/90
						2NH04502006	2	15.0/20.0*	72.2/83.3	99.0/112.9	100/125	100/125
						2NH04502506	2	18.8/25.0*	90.3/104.2	121.6/139.0	125/150	125/150
036	208/230-3-60	10.9	78.0	1.1	3.5	2NH04501025	1	7.5/10.0*	20.8/24.1	30.4/34.4	35/35	35/35
						2NH04501525	1	11.3/15.0*	31.3/36.1	43.5/49.5	45/50	45/50

TABLE 11: ELECTRICAL DATA (COOLING / ELECTRIC HEAT) (CONTINUED)

MODEL DEB	POWER SUPPLY	COMPRESSOR		COND. FAN MOTORS	SUPPLY AIR BLOWER MOTOR	ELECTRIC HEAT ACCESSORY				MCA (AMPS)	MAX FUSE/ SIZE[1] (AMPS)	MAX HACR[2] BREAKER SIZE
		RLA	LRA	FLA	FLA	MODEL NO.	STAGE	KW	TOTAL AMPS			
042	208/230-3-60	11.5	88.0	1.1	3.5	2NH04501025	1	7.5/10.0*	20.8/24.1	30.4/34.4	35/35	35/35
						2NH04501525	1	11.3/15.0*	31.3/36.1	43.5/49.5	45/50	45/50
048	208/230-3-60	14.1	105.0	0.7	4.0	2NP04501025	1	7.5/10.0*	20.8/24.1	31.1/35/1	35/40	35/40
						2NP04501525	1	11.3/15.0*	31.3/36.1	44.1/50.1	45/60	45/60
						2NP04502025	2	15.0/20.0*	41.7/48.1	57.1/65.1	60/70	60/70
						2NH04502525	2	18.8/25.0*	52.1/60.1	70.2/80.2	80/90	80/90
060	208/230-3-60	16.0	125.0	1.3	7.0	2NH04501025	1	7.5/10.0*	20.8/24.1	34.8/38.8	40/40	40/40
						2NH04501525	1	11.3/15.0*	31.3/36.1	47.8/53.9	50/60	50/60
						2NH04502025	2	15.0/20.0*	41.7/48.1	60.9/68.9	70/70	70/70
						2NH04502525	2	18.8/25.0*	52.1/60.1	73.9/83.9	80/90	80/90
036	460-3-60	5.8	40.0	0.6	1.8	2NH04501046	1	10.0**	12	17.3	20	20
						2NH04501546	1	15.0**	18	24.8	25	25
042	460-3-60	5.8	42.0	0.6	1.8	2NH04501046	1	10.0**	12	17.3	20	20
						2NH04501546	1	15.0**	18	24.8	25	25
048	460-3-60	7.1	55.0	0.8	2.0	2NP04501046	1	10.0**	12	17.5	20	20
						2NH04501546	1	15.0**	18	25.1	30	30
						2NH04502046	2	20.0**	24.1	32.6	35	35
						2NH04502546	2	25.0**	30.1	40.1	45	45
060	460-3-60	8.0	67.0	0.7	3.5	2NH04501046	1	10.0**	12	19.4	20	20
						2NH04501546	1	15.0**	18	26.9	30	30
						2NP04502046	2	20.0**	24.1	34.4	35	35
						2NP04502546	2	25.0**	30.1	42	45	45
036	575-3-60	4.5	32.0	0.4	1.5	2NH04501058	1	10.0***	9.6	13.9	15	15
						2NH04501558	1	15.0***	14.4	19.9	20	20
042	575-3-60	5.8	44.0	0.4	1.5	2NH04501058	1	10.0***	9.6	13.9	15	15
						2NH04501558	1	15.0***	14.4	19.9	20	20
048	575-3-60	5.6	44.0	0.6	1.6	2NH04501058	1	10.0***	9.6	14	15	15
						2NH04501558	1	15.0***	14.4	20	25	25
						2NH04502058	2	20.0***	19.2	26.1	30	30
						2NH04502558	2	25.0***	24.1	32.1	35	35
060	575-3-60	6.4	50.0	0.6	2.8	2NH04501058	1	10.0***	9.6	15.5	20	20
						2NH04501558	1	15.0***	14.4	21.5	25	25
						2NP04502058	2	20.0***	19.2	27.6	30	30
						2NP04502558	2	25.0***	24.1	33.6	35	35

1. Dual element, time delay type.
2. Standard circuit breakers may be used in Canada and on applications over 60 amps where the heaters are separately fused.

* = KW listed is for 240 volts, use table on previous page for 208 or 230 volts.
** = KW listed is for 480 volts, use table on previous page for 460 volts.
*** = KW listed is for 600 volts, use table on previous page for 575 volts.



UNIT SIZE	DIMENSION "A"
030 - 042	33 1/2
048 - 060	41 1/2

CLEARANCES (Minimum)	
Front	12"
Back	0"
Left Side (Filter Access)	24"
Right Side	24"
Below Unit [1]	0"
Above Unit [2]	36" (For Condenser Air Discharge)

[1] Units may be installed on combustible floors made from wood or class A, B or C roof covering material.

[2] Units must be installed outdoors. Overhanging structures or shrubs should not obstruct outdoor air discharge outlet.

FIGURE 3 - UNIT DIMENSIONS

TABLE 12: UNIT WEIGHTS

Unit Size	Shipping Weight	Operating Weight	Corner Weights				Economizer (lbs.)	Roof Curb (lbs.)
			A	B	C	D		
030	333	328	85	81	82	86	40	8" - 70 14" - 75
036	338	333	91	80	78	88		
042	347	342	94	83	80	91		
048	368	363	92	88	92	97		
060	376	371	105	100	84	87		

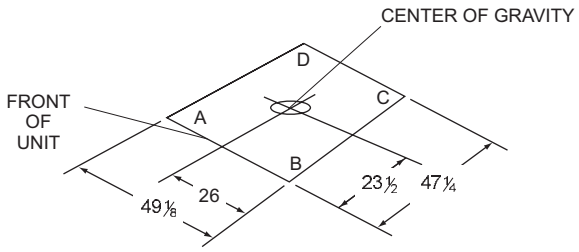


FIGURE 4 - CENTER OF GRAVITY

TYPICAL APPLICATIONS

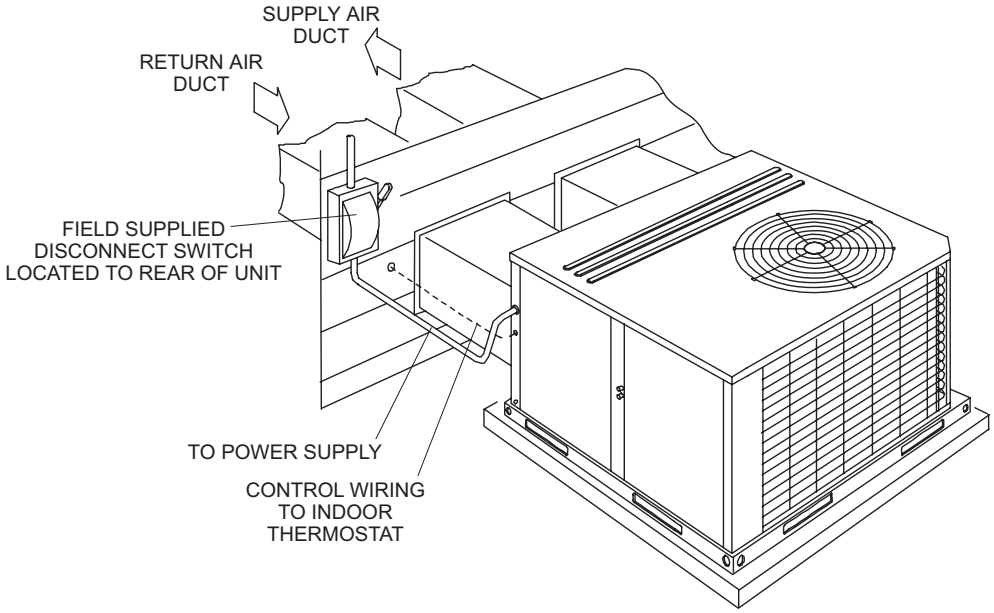


FIGURE 5 - TYPICAL SLAB ON GROUND INSTALLATION

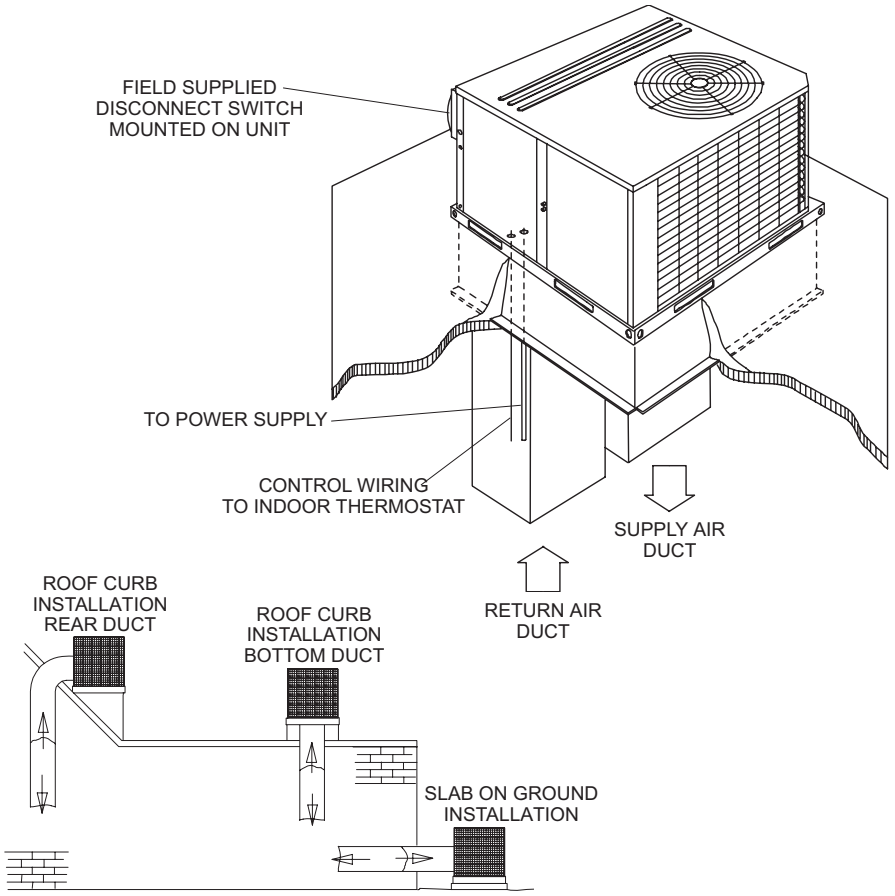
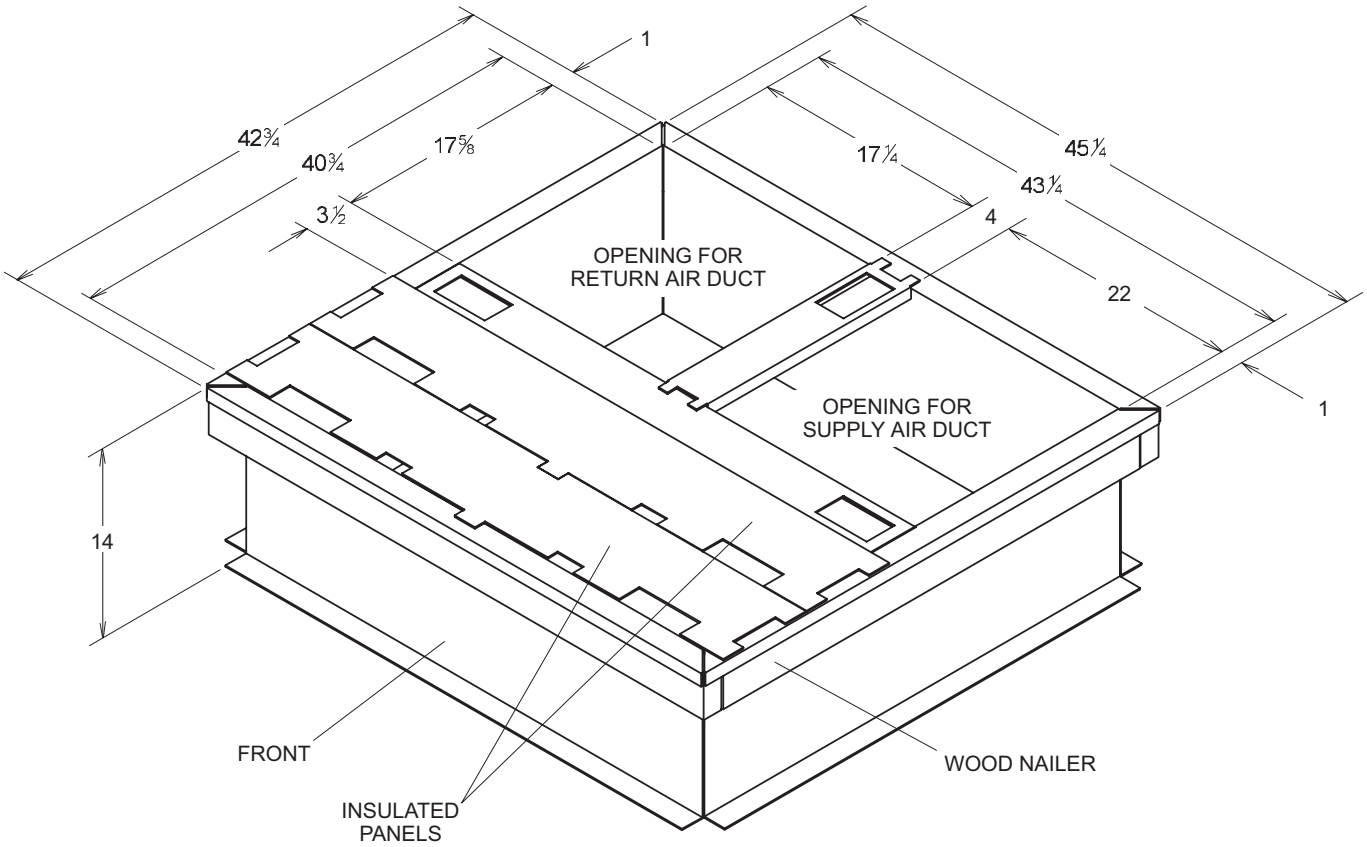


FIGURE 6 - TYPICAL ROOF CURB INSTALLATION



RECOMMENDED DUCT SIZE	
SUPPLY AIR DUCT	17⅛" x 21½"
RETURN AIR DUCT	17⅛" x 16¾"

FIGURE 7 - ROOF CURB DIMENSIONS (8” Roof curb also available)

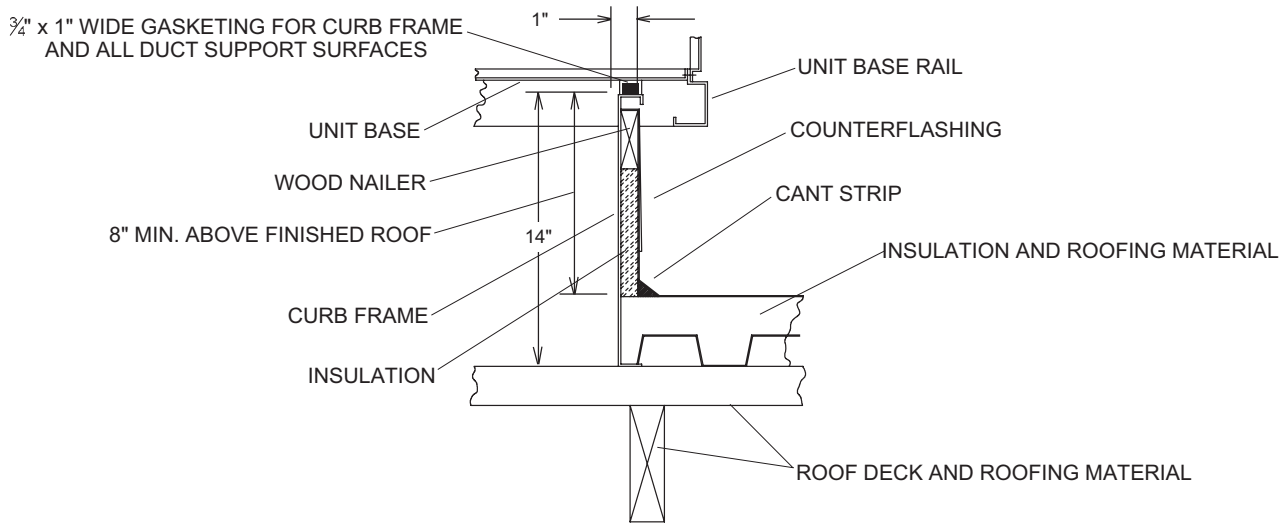


FIGURE 8 - ROOF CURB APPLICATION

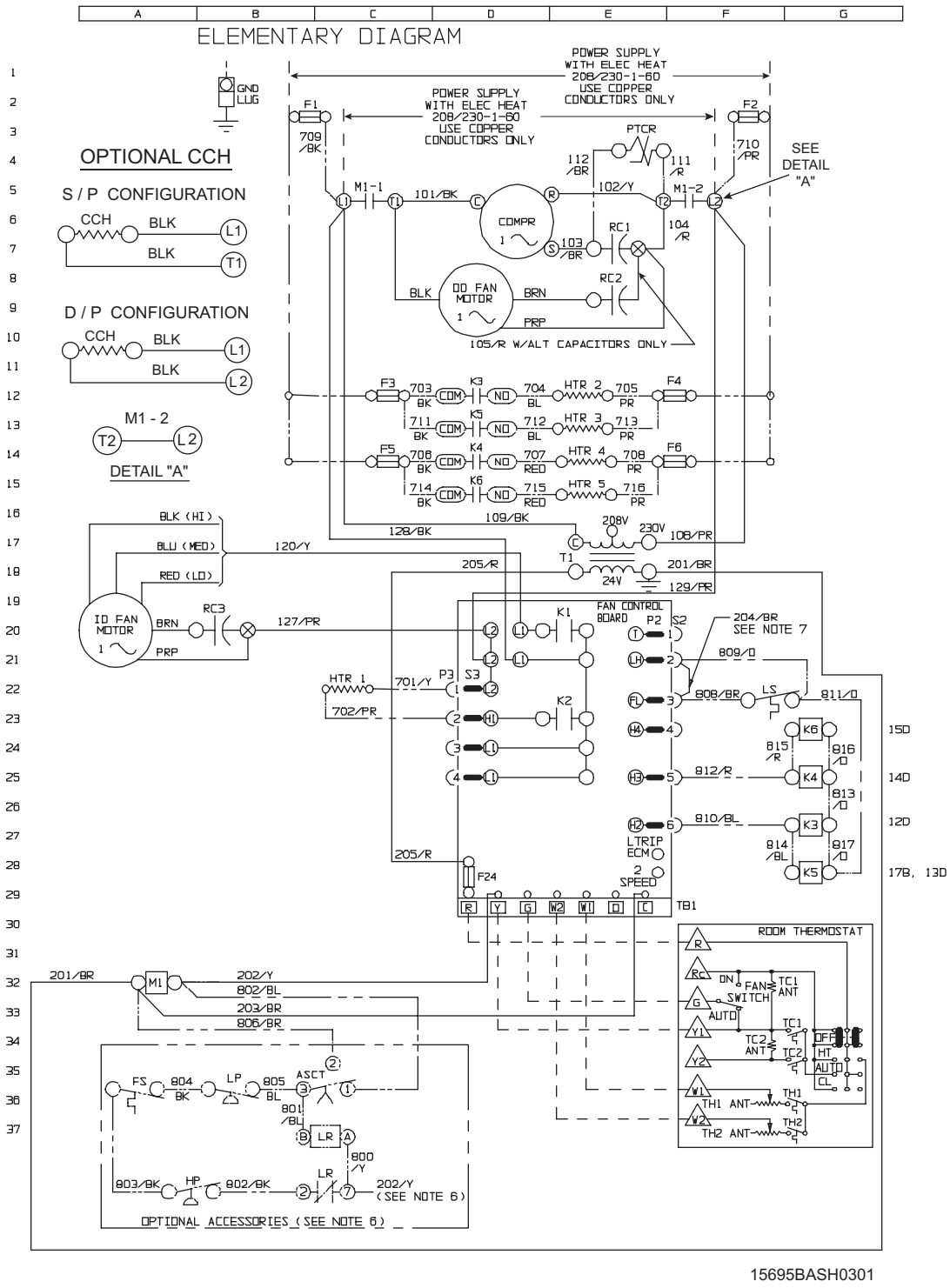
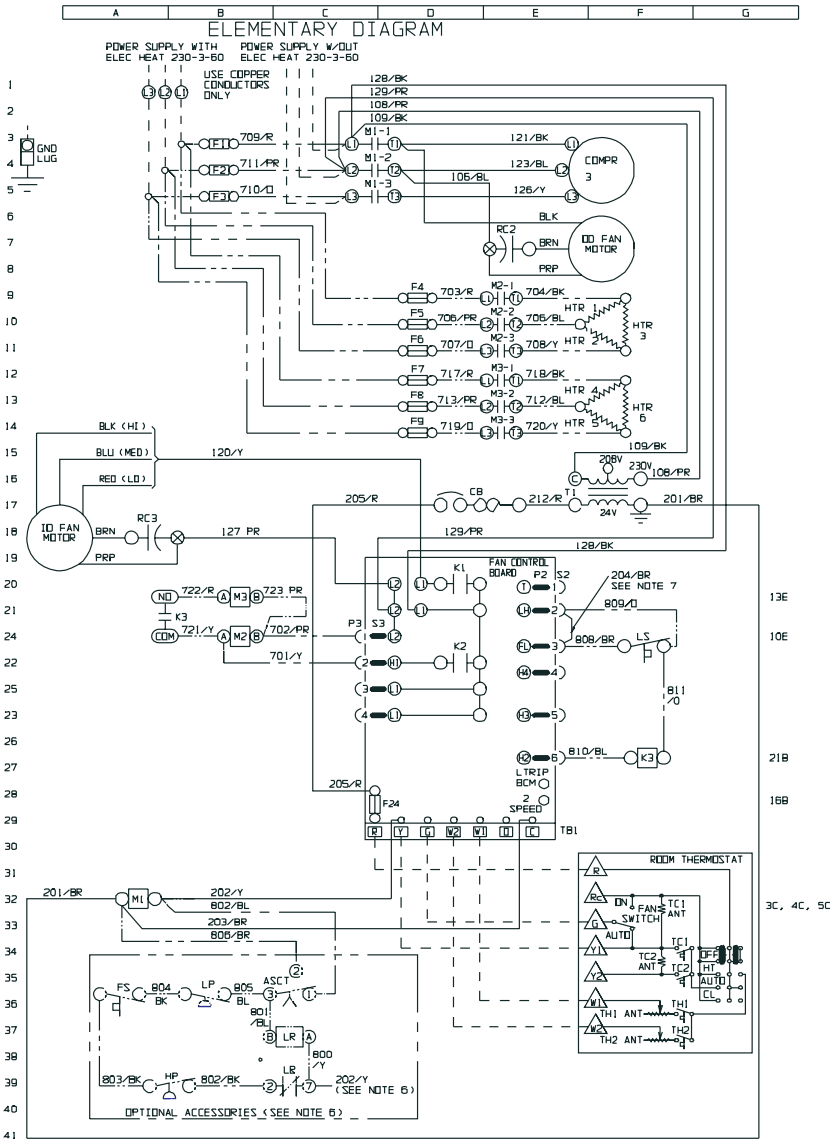


FIGURE 9 - TYPICAL WIRING DIAGRAM (208/230-1-60 POWER SUPPLY) DEB MODELS



TYPICAL WIRING DIAGRAM NOTES

1. ALL FIELD WIRING TO BE ACCOMPLISHED FOLLOWING CITY, LOCAL AND/OR NATIONAL CODES IN EFFECT AT TIME OF INSTALLATION OF THIS UNIT.
2. CAUTION: LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION. IF ANY OF THE WIRE AS SUPPLIED WITH THIS UNIT MUST BE REMOVED, IT MUST BE REPLACED WITH TYPE 105Σ C, 600V WIRE OR EQUIVALENT CLEARLY RENUMBERED FOR IDENTIFICATION. VERIFY PROPER OPERATION AFTER SERVICING.
3. MOTORS ARE INHERENTLY PROTECTED.
4. UNIT FACTORY WIRED FOR 230 VOLT OPERATION. FOR 208 VOLT OPERATION MOVE '108/PR' WIRE FROM 230V TO 208V ON TRANSFORMER T1.
5. SEE UNIT NAMEPLATE FOR MAXIMUM FUSE SIZE AND MINIMUM CIRCUIT AMPACITY.
6. IF BOTH LR AND ASCT ARE PRESENT, WIRE 801/BL AND 805/BL ARE CONNECTED TO ASCT-3. IF ONLY LR IS PRESENT, WIRE 801/BL AND 805/BL ARE CONNECTED TO M1 COIL. IF ONLY ASCT IS PRESENT, WIRE 202/Y IS CONNECTED TO ASCT-3. IF NEITHER LR OR ASCT ARE PRESENT, WIRE 202/Y IS CONNECTED TO M1 COIL.
7. WIRE 204/BR IS REMOVED WHEN ELECTRIC HEAT IS INSTALLED.
8. SHUNT CONTACT ALSO USED WITH CRANKCASE HEATER. (OPTIONAL)

CAUTION - OPEN ALL DISCONNECTS BEFORE SERVICING THIS UNIT

TYPICAL WIRING DIAGRAM LEGEND

	LEGEND:
CCH	CRANKCASE HEATER (OPTIONAL)
ASCT	ANTI-SHORT CYCLE TIMER (OPTIONAL ACCESSORY)
COMPR	COMPRESSOR
F1 - F 9	FUSES, LINE VOLTAGE
F24	FUSE 24V SECONDARY, 5 AMP
FS	FREEZESTAT SWITCH (OPTIONAL ACCESSORY) OPEN @ 26°F
HP	HIGH PRESSURE SWITCH (OPTIONAL ACCESSORY) OPENS @ 380 PSIG
HTR 1 - 6	ELECTRIC HEATER
K1	RELAY INDOOR FAN MOTOR (N O T U S E D)
K2 - K6	RELAY ELECTRIC HEATER
LP	LOW PRESSURE SWITCH (OPTIONAL ACCESSORY) OPEN @ 7 PSIG
LR	LOCK OUT RELAY (OPTIONAL ACCESSORY)
LS	LIMIT SWITCH, ELECTRIC HEAT (PART OF ELEC HEAT ACCESSORY)
M1	CONTACTOR, COMPRESSOR & OUTDOOR FAN
M2 - M 3	CONTACTOR, COMPRESSOR & OUTDOOR FAN, 2 3 0 V C O I L
PTCR	START ASSIST (OPTIONAL DEVICE)
RC1/RC2	COMPRESSOR START & OUTDOOR FAN RUN CAPACITOR
RC1	COMPRESSOR START CAPACITOR (ALTERNATE)
RC2	OUTDOOR FAN RUN CAPACITOR (ALTERNATE)
RC2	INDOOR FAN RUN CAPACITOR
S2/P2	SOCKET/PLUG CONNECTION ON FAN CONTROL BOARD, LOW VOLTAGE
S3/P3	SOCKET/PLUG CONNECTION ON FAN CONTROL BOARD, LINE VOLTAGE
S4/P4	SOCKET/PLUG CONNECTION ON ID FAN MOTOR, 24V
S5/P5	SOCKET/PLUG CONNECTION ON ID FAN MOTOR, 230V
T1	TRANSFORMER, 24V, 40 VA
T2	TRANSFORMER, 460/575-3-60, 230-3-60, 2,200 VA
TB2	TERMINAL BLOCK ECM MOTOR "SPEED" CONNECTIONS
⊗	IDENTIFIED TERMINAL ON RUN CAPACITOR
△	ROOM THERMOSTAT 24V CONNECTIONS
□	TB1 ON FAN/ELEC HEAT CONTROL BOARD
————	FACTORY WIRING AND DEVICES
——·—·——	OPTIONAL WIRING AND DEVICES
- - - - - -	FIELD WIRING

FIGURE 10 -TYPICAL WIRING DIAGRAM (208/230-3-60 POWER SUPPLY) DEB MODELS

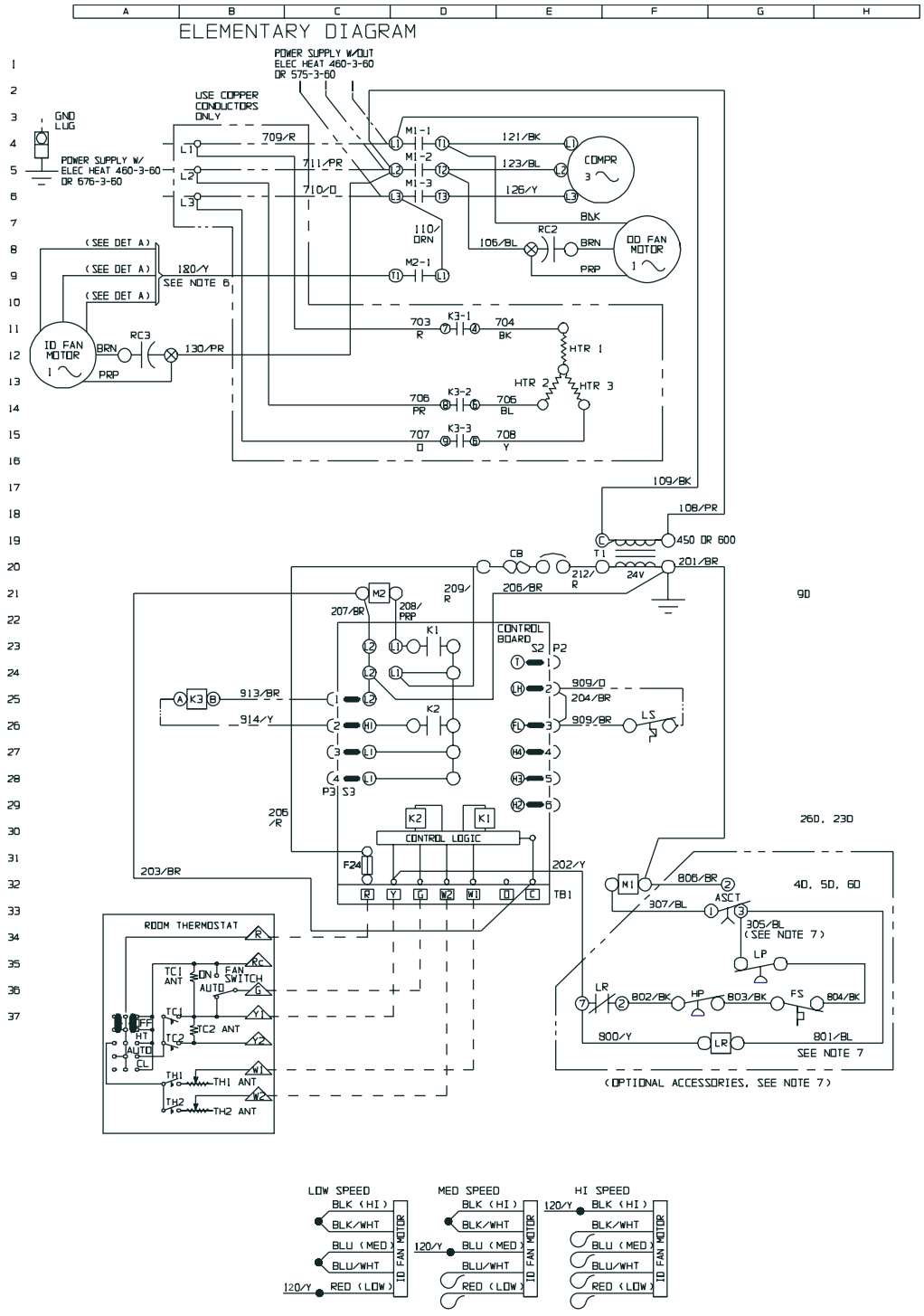


FIGURE 11 -TYPICAL WIRING DIAGRAM (460-3-60 AND 575-3-60 POWER SUPPLY) DEB MODELS

MECHANICAL SPECIFICATIONS

GENERAL DESCRIPTION

Units shall be factory-assembled, single packaged, Electric Cooling units, designed for outdoor mounted installation. They shall have built in, equal size, field convertible duct connections for down discharge supply/return or horizontal discharge supply/return.

The units shall be factory wired, piped, charged with R-22 refrigerant and factory tested prior to shipment. All unit wiring shall be both numbered and color coded.

All units shall be manufactured in a facility certified to ISO 9001 standards, and the cooling performance shall be tested in accordance with ARI test procedures. Units shall be certified to UL 1995/CAN/CSA C22.2 No. 236 standards.

UNIT CABINET

1. Unit cabinet shall be constructed of galvanized steel, with exterior surfaces coated with a non-chalking, powdered paint finish, certified at 1000 hours salt spray test per ASTMB117 standards.
2. The unit top shall be a single piece “Water Shed” design, with drip edges and no-seam corners to provide optimum water integrity
3. Unit shall have a rigidly mounted condenser coil guard to provide protection from objects and personnel after installation.
4. Indoor blower section shall be insulated with up to 3/4” thick, aluminum, foil faced insulation, fastened to prevent insulation from entering the air stream.
5. Cabinet panels shall be “large” size, easily removable for servicing and maintenance, with built-in lift handles.
6. Unit shall be built on a formed, “Super-Structure” design base pan, with embossments at critical points to add strength, rigidity and aid in minimizing sound.
7. Full perimeter base rails shall be provided to assure reliable transit of equipment, overhead rigging, fork truck access and proper sealing on roof curb applications. Base rails shall be removable, when required, to lower unit height.
8. Filters shall be furnished and be accessible through a removable access door, sealed air tight. (Single phase models - accessory kit available. Three phase models - standard from factory.)
9. Units vertical discharge and return duct configuration shall be designed to fit between standard 24” O.C. beams without modification to building structure, duct work and base unit.
10. Condensate pan shall be internally sloped and conform to ASHRAE 62-89 self-draining standards, with 3/4” NPTI copper, ridged mount connection.

4. Unit Controls:

INDOOR (EVAPORATOR) FAN ASSEMBLY

1. Fan shall be direct drive, multi-speed design. Job site selected (BHP) brake horse power shall not exceed the motors nameplate horse power rating.
2. Fan wheel shall be double-inlet type with forward-curved blades, dynamically balanced to operate smoothly throughout the entire range of operation. Airflow design shall be constant air volume.
3. Bearings shall be sealed and permanently lubricated for longer life and no maintenance.
4. Fan assembly shall be “Slip Track” (slide-out) design for easy removal and cleaning.

OUTDOOR (CONDENSER) FAN ASSEMBLY

1. The outdoor fan shall be of the direct-driven propeller type, discharge air vertically, have aluminum blades riveted to corrosion resistant steel spider bracket and shall be statically balanced for smooth operation.
2. The outdoor fan motor shall be totally enclosed with permanently lubricated bearings and internally protected against overload conditions.

REFRIGERANT COMPONENTS

1. Compressors:
   a. Shall be fully hermetic reciprocating type, direct drive, internally protected with internal high-pressure relief and over temperature protection. The hermetic motor shall be suction gas cooled and have a voltage range of + or - 10% of the unit nameplate voltage.
   b Shall have internal isolation and sound muffling to minimize vibration and noise, and be externally isolated on a dedicated, independent mounting.
2. Coils:
   a. Evaporator and condenser coils shall have aluminum plate fins mechanically bonded to seamless internally-enhanced copper tubes with all joints brazed.
   b Evaporator and Condenser coils shall be of the direct expansion, draw-thru design.
3. Refrigerant Circuit and Refrigerant Safety Components shall include:
   a. Independent fixed-orifice expansion devices.
   b. Filter/strainer to eliminate any foreign matter.
   c. Accessible service gauge connections on both suction and discharge lines to charge, evacuate, and measure refrigerant pressure during any necessary servicing or troubleshooting, without losing charge and without disrupting condenser or evaporator air flow.
   d The refrigeration system shall provide at least 10° F of liquid sub-cooling at design conditions.

   a. Unit shall contain a large, low voltage Terminal Board for easy connection of field low voltage wiring.

b. Controls shall be mounted in a large control box with tilt-out, hinged access door, allowing easy access for trouble shooting and maintenance without affecting the normal system operation pressures.

c. Unit shall have large, easily removable panels, covering electrical controls and compressor, allowing easy access for any necessary maintenance or servicing.

ELECTRIC HEATING SECTION

1. An electric heating section, with nickel chromium elements, shall be provided in a range of 5 thru 25 KW, offering two stages of capacity - 7 KW and above on single phase heaters, and 20 KW and above on three phase heaters.
2. The heating section shall have a primary limit control(s) and automatic reset, to prevent the heating element system from operating at an excessive temperature.
3. The heating section assembly shall slide out of the unit for easy maintenance and service.
4. Units with electric heating sections shall be wired for a single point power supply, with branch circuit fusing (where required).

UNIT OPERATING CHARACTERISTICS

1. Unit shall be capable of starting and running at 125° F outdoor temperature, exceeding maximum load criteria of ARI Standard 210/240.
2. The compressor, with standard controls, shall be capable of operation down to 45° F outdoor temperature. Accessory low ambient kit shall be available for operation to 0° F.

ELECTRICAL REQUIREMENTS

All unit power wiring shall enter unit cabinet at a single factory provided location and be capable of side or bottom entry, to minimize roof penetrations and avoid unit field modifications. Separate side and bottom openings shall be provided for the control wiring.

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